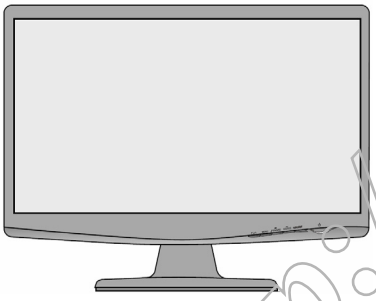
E-mail: http://www.LGEservice.com/techsup.html

COLOR MONITOR

SERVICE MANUAL

MODEL: FLATRON W1943TB (W1943TB-PFT.ANAPH for LGD TLC1, W1943TB-PFT.A**VAPH for AUO V00) **Sales Market**

CAUTION
BEFORE SERVICING THE UNIT,
READ THE **SAFETY PRECAUTIONS** IN THIS MANUAL.



*To apply the **Novatek Chip**.

http://www.wjelnet

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SPECIFICATIONS

1. LCD CHARACTERISTICS

Type: matrix-TFT Color LCD Module
Active Display Area: 18.51 inches
Pixel Pitch: 0.3 (H) x 0.3 (V)mm
Color Depth: 16.7M colors
Size: 430.4(H) x 254.6(V) x 13.0(D) mm(Typ.)
Interface: LVDS 1Port
Surface Treatment: Hard-coating(3H), Anti-Glare
Operating Mode: Normally White, Transmissive mode
Backlight unit: 2 CCFL

2. OPTICAL CHARACTERISTICS

2-1. Viewing Angle by Contrast Ratio > 10
Left : 70°min, 85°(Typ) Right : 70°min, 85°(Typ)
Top :60° min, 75°(Typ) Bottom : 70°min,85°(Typ)

2-2.Luminance :250Cd / m^2 (min), 300Cd / m^2 (Typ)
-**6500K**; 170Cd / m^2 (min) -**9300K**

2-3. Contrast Ratio: 600(min), 1000(Typ)

3. SIGNAL (Refer to the Timing Chart)

3-1. Sync Signal
Type: Separate Sync, SOG (Sync On Green) / Digital

3-2. Video Input Signal
1) Type: R, G, B Analog
2) Voltage Level: 0~0.7 Vp-p
3) Input impedance: 75 Ω

3-3. Operating Frequency
Horizontal: 30 ~ 61kHz
Vertical: 56 ~ 75Hz

4. Max. Resolution

D-sub Analog: VESA 1360 x 768 @ 60 Hz

5. POWER SUPPLY

5-1. Power: AC 100-240V~ 50/60Hz 0.8A

5-2. Power Consumption
On Mode: 21 W(Typ.)
Sleep Mode: ≤ 1 W
Off Mode: ≤ 1 W

6. ENVIRONMENT

6-1. Operating
Temperature: 10°C~35°C
Humidity: 10 % to 80 % non-Condensing

6-2. Storage
Temperature: -20°C to 60 °C
Humidity: 5 % to 90 % non-Condensing

6-3. MTBF: 70000 Hours (Not include panel)
Lamp Life: ≤ 50000 Khrs

7. DIMENSIONS (with Stand)

Width: 44.90 cm (17.68 inches)
Depth: 18.30 cm (7.20 inches)
Height: 29.05 cm (11.44 inches)

8. WEIGHT (excl. packing)

Weight: 3.3 kg (7.28 lbs)

http://www.vlel.net

PRECAUTION

WARNING FOR THE SAFETY-RELATED COMPONENT.

- There are some special components used in LCD monitor that are important for safety. ***These parts are marked ⚠ on the schematic diagram and the replacement parts list.*** It is essential that these critical parts should be replaced with the manufacturer's specified parts to prevent electric shock, fire or other hazard.
- Do not modify original design without obtaining written permission from manufacturer or you will void the original parts and labor guarantee.

TAKE CARE DURING HANDLING THE LCD MODULE WITH BACKLIGHT UNIT.

- Must mount the module using mounting holes arranged in four corners.
- Do not press on the panel, edge of the frame strongly or electric shock as this will result in damage to the screen.
- Do not scratch or press on the panel with any sharp objects, such as pencil or pen as this may result in damage to the panel.
- Protect the module from the ESD as it may damage the electronic circuit (C-MOS).
- Make certain that treatment person's body are grounded through wrist band.
- Do not leave the module in high temperature and in areas of high humidity for a long time.
- The module not be exposed to the direct sunlight.
- Avoid contact with water as it may a short circuit within the module.
- If the surface of panel become dirty, please wipe it off with a softmaterial. (Cleaning with a dirty or rough cloth may damage the panel.)

⚠ CAUTION

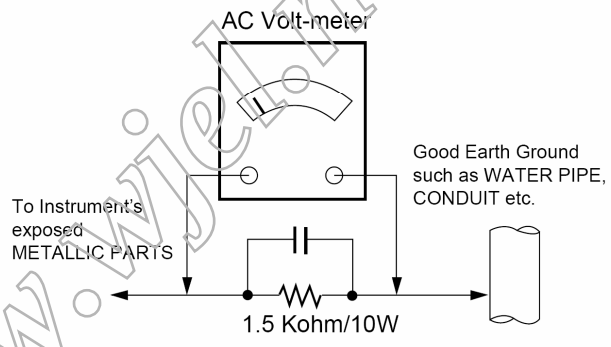
Please use only a plastic screwdriver to protect yourself from shock hazard during service operation.

⚠ WARNING

BE CAREFUL ELECTRIC SHOCK !

- If you want to replace with the new backlight (CCFL) or inverter circuit, must disconnect the AC adapter because high voltage appears at inverter circuit about 650Vrms.
- Handle with care wires or connectors of the inverter circuit. If the wires are pressed cause short and may burn or take fire.

Leakage Current Hot Check Circuit



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SERVICING PRECAUTIONS

CAUTION: Before servicing receivers covered by this service manual and its supplements and addenda, read and follow the ***SAFETY PRECAUTIONS*** on page 3 of this publication.

NOTE: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions on page 3 of this publication, always follow the safety precautions. Remember: Safety First.

General Servicing Precautions

1. Always unplug the receiver AC power cord from the AC power source before;
   a. Removing or reinstalling any component, circuit board module or any other receiver assembly.
   b. Disconnecting or reconnecting any receiver electrical plug or other electrical connection.
   c. Connecting a test substitute in parallel with an electrolytic capacitor in the receiver.
   CAUTION: A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.
   d. Discharging the picture tube anode.
2. Test high voltage only by measuring it with an appropriate high voltage meter or other voltage measuring device (DVM, FETVOM, etc) equipped with a suitable high voltage probe.
   Do not test high voltage by "drawing an arc".
3. Discharge the picture tube anode only by (a) first connecting one end of an insulated clip lead to the degaussing or kine aquadag grounding system shield at the point where the picture tube socket ground lead is connected, and then (b) touch the other end of the insulated clip lead to the picture tube anode button, using an insulating handle to avoid personal contact with high voltage.
4. Do not spray chemicals on or near this receiver or any of its assemblies.
5. Unless specified otherwise in this service manual, clean electrical contacts only by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable non-abrasive applicator; 10% (by volume) Acetone and 90% (by volume) isopropyl alcohol (90%-99% strength)
   CAUTION: This is a flammable mixture.
   Unless specified otherwise in this service manual, lubrication of contacts in not required.
6. Do not defeat any plug/socket B+ voltage interlocks with which receivers covered by this service manual might be equipped.
7. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.
8. Always connect the test receiver ground lead to the receiver chassis ground before connecting the test receiver positive lead.
   Always remove the test receiver ground lead last.
9. *Use with this receiver only the test fixtures specified in this service manual.*
   CAUTION: Do not connect the test fixture ground strap to any heat sink in this receiver.

Electrostatically Sensitive (ES) Devices

Some semiconductor (solid-state) devices can be damaged easily by static electricity. Such components commonly are called *Electrostatically Sensitive (ES) Devices.* Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed to prevent potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

http://www.radiofans.cn

General Soldering Guidelines

1. Use a grounded-tip, low-wattage soldering iron and appropriate tip size and shape that will maintain tip temperature within the range or 500° F to 600° F.
2. Use an appropriate gauge of RMA resin-core solder composed of 60 parts tin/40 parts lead.
3. Keep the soldering iron tip clean and well tinned.
4. Thoroughly clean the surfaces to be soldered. Use a mall wire-bristle (0.5 inch, or 1.25cm) brush with a metal handle.
   Do not use freon-propelled spray-on cleaners.
5. Use the following unsoldering technique
   a. Allow the soldering iron tip to reach normal temperature.
      (500° F to 600° F)
   b. Heat the component lead until the solder melts.
   c. Quickly draw the melted solder with an anti-static, suction-type solder removal device or with solder braid.
      CAUTION: Work quickly to avoid overheating the circuitboard printed foil.
6. Use the following soldering technique.
   a. Allow the soldering iron tip to reach a normal temperature (500° F to 600° F)
   b. First, hold the soldering iron tip and solder the strand against the component lead until the solder melts.
   c. Quickly move the soldering iron tip to the junction of the component lead and the printed circuit foil, and hold it there only until the solder flows onto and around both the component lead and the foil.
      CAUTION: Work quickly to avoid overheating the circuit board printed foil.
   d. Closely inspect the solder area and remove any excess or splashed solder with a small wire-bristle brush.

IC Remove/Replacement

Some chassis circuit boards have slotted holes (oblong) through which the IC leads are inserted and then bent flat against the circuit foil. When holes are the slotted type, the following technique should be used to remove and replace the IC. When working with boards using the familiar round hole, use the standard technique as outlined in paragraphs 5 and 6 above.

Removal

1. Desolder and straighten each IC lead in one operation by gently prying up on the lead with the soldering iron tip as the solder melts.
2. Draw away the melted solder with an anti-static suction-type solder removal device (or with solder braid) before removing the IC.

Replacement

1. Carefully insert the replacement IC in the circuit board.
2. Carefully bend each IC lead against the circuit foil pad and solder it.
3. Clean the soldered areas with a small wire-bristle brush. (It is not necessary to reapply acrylic coating to the areas).

"Small-Signal" Discrete Transistor Removal/Replacement

1. Remove the defective transistor by clipping its leads as close as possible to the component body.
2. Bend into a "U" shape the end of each of three leads remaining on the circuit board.
3. Bend into a "U" shape the replacement transistor leads.
4. Connect the replacement transistor leads to the corresponding leads extending from the circuit board and crimp the "U" with long nose pliers to insure metal to metal contact then solder each connection.

Power Output, Transistor Device Removal/Replacement

1. Heat and remove all solder from around the transistor leads.
2. Remove the heat sink mounting screw (if so equipped).
3. Carefully remove the transistor from the heat sink of the circuit board.
4. Insert new transistor in the circuit board.
5. Solder each transistor lead, and clip off excess lead.
6. Replace heat sink.

Diode Removal/Replacement

1. Remove defective diode by clipping its leads as close as possible to diode body.
2. Bend the two remaining leads perpendicular y to the circuit board.
3. Observing diode polarity, wrap each lead of the new diode around the corresponding lead on the circuit board.
4. Securely crimp each connection and solder it.
5. Inspect (on the circuit board copper side) the solder joints of the two "original" leads. If they are not shiny, reheat them and if necessary, apply additional solder.

Fuse and Conventional Resistor Removal/Replacement

1. Clip each fuse or resistor lead at top of the circuit board hollow stake.
2. Securely crimp the leads of replacement component around notch at stake top.
3. Solder the connections.
   CAUTION: Maintain original spacing between the replaced component and adjacent components and the circuit board to prevent excessive component temperatures.

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Circuit Board Foil Repair

Excessive heat applied to the copper foil of any printed circuit board will weaken the adhesive that bonds the foil to the circuit board causing the foil to separate from or "lift-off" the board. The following guidelines and procedures should be followed whenever this condition is encountered.

At IC Connections

To repair a defective copper pattern at IC connections use the following procedure to install a jumper wire on the copper pattern side of the circuit board. (Use this technique only on IC connections).

1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary).
2. carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.
3. Bend a small "U" in one end of a small gauge jumper wire and carefully crimp it around the IC pin. Solder the IC connection.
4. Route the jumper wire along the path of the out-away copper pattern and let it overlap the previously scraped end of the good copper pattern. Solder the overlapped area and clip off any excess jumper wire.

At Other Connections

Use the following technique to repair the defective copper pattern at connections other than IC Pins. This technique involves the installation of a jumper wire on the component side of the circuit board.

1. Remove the defective copper pattern with a sharp knife.
   Remove at least 1/4 inch of copper, to ensure that a hazardous condition will not exist if the jumper wire opens.
2. Trace along the copper pattern from both sides of the pattern break and locate the nearest component that is directly connected to the affected copper pattern.
3. Connect insulated 20-gauge jumper wire from the lead of the nearest component on one side of the pattern break to the lead of the nearest component on the other side.
   Carefully crimp and solder the connections.
   CAUTION: Be sure the insulated jumper wire is dressed so the it does not touch components or sharp edges.

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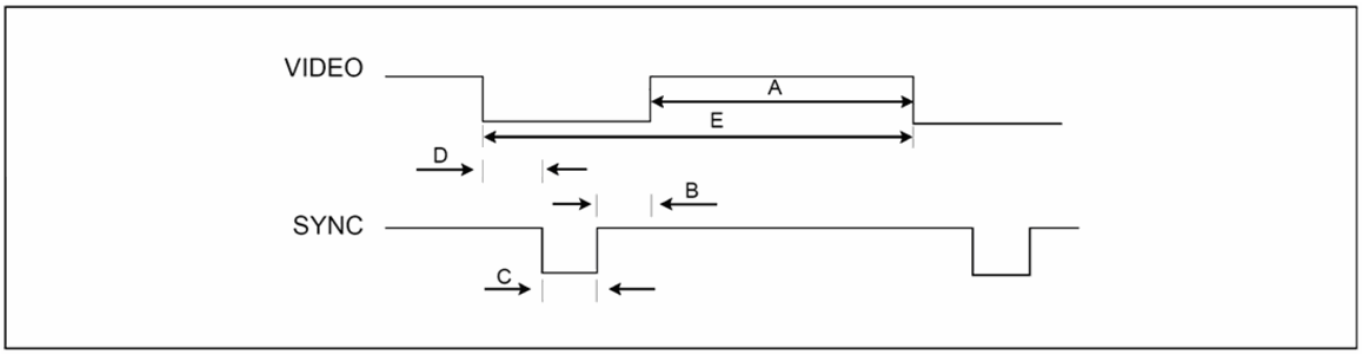
TIMING CHART



mode	section	polarity	DOT CLOCK [MHz]	Frequency [kHz]/[Hz]	Total Period(E)	Display (A)	Front Porch (D)	Sync. (C)	Back Porch (B)	Resol-ution
1	H(Pixels)	-	28.321	31.468	900	720	18	108	54	720 X
	V(Lines)	+		70.08	449	400	12	2	35	400
2	H(Pixels)	-	25.175	31.469	800	640	16	96	48	640 x
	V(Lines)	-		59.94	525	480	10	2	33	480
3	H(Pixels)	-	31.5	37.5	840	640	16	64	120	640 x
	V(Lines)	-		75	500	480	1	3	16	480
4	H(Pixels)	+	40.0	37.879	1056	800	40	128	88	800 x
	V(Lines)	+		60.317	628	600	1	4	23	600
5	H(Pixels)	+	49.5	46.875	1056	800	16	80	160	800 x
	V(Lines)	+		75.0	625	600	1	3	21	600
6	H(Pixels)	+/-	57.283	49.725	1152	832	32	64	224	832 x
	V(Lines)	+/-		74.55	667	624	1	3	39	624
7	H(Pixels)	-	65.0	48.363	1344	1024	24	136	160	1024 x
	V(Lines)	-		60.0	806	768	3	6	29	768
8	H(Pixels)	-	78.75	60.123	1312	1024	16	96	176	1024 x
	V(Lines)	-		75.029	800	768	1	3	28	768
9	H(Pixels)	+	85.5	47.712	1792	1360	64	122	256	1360
	V(Lines)	+		60.015	795	768	3	6	18	x768

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DISASSEMBLY-Set

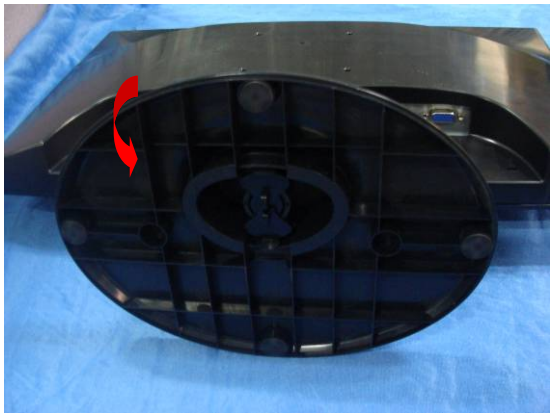
#1

Put the monitor on a soft flat.

#2

Revolve the release button.

#3



Consequently, pull the base directly.

#4

The base.

#5

Put the front cover upward. Then let the all latches are separated.

#6

Put the front face down, disassembly back cover.

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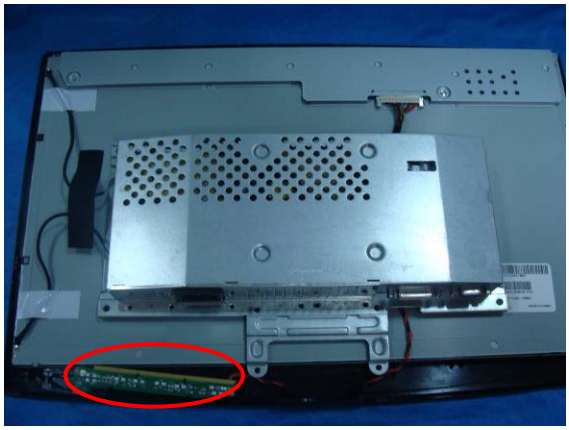
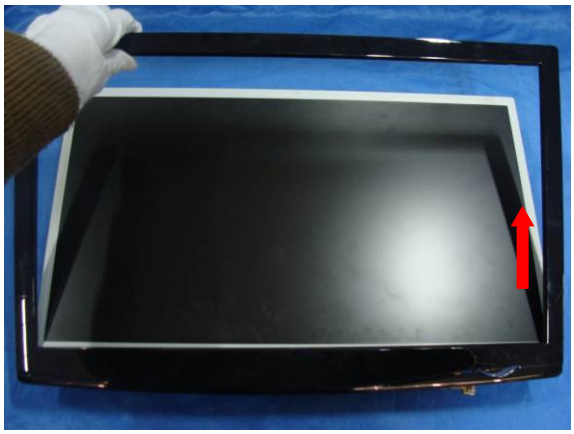
#7



Pull the key board out of bezel.

#8

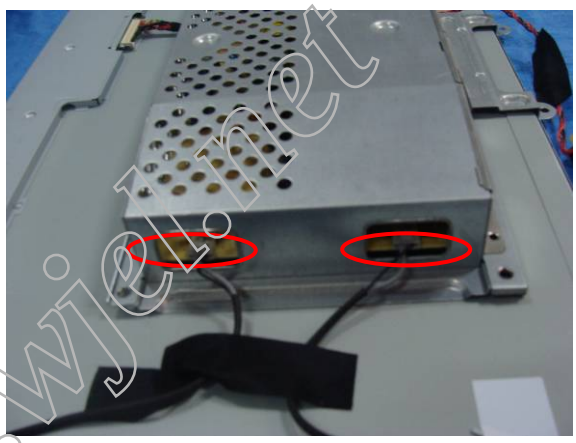


Disassembly the bezel.

#9

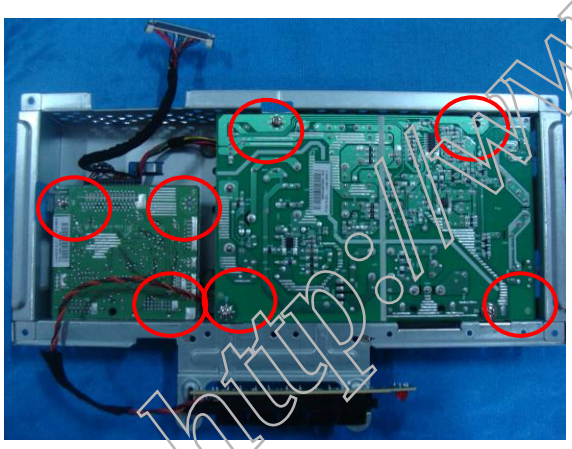
Disassembly the LVDS cable.

#10



Disassemble the connector.

#11



Main board and power board.

#12

The panel.

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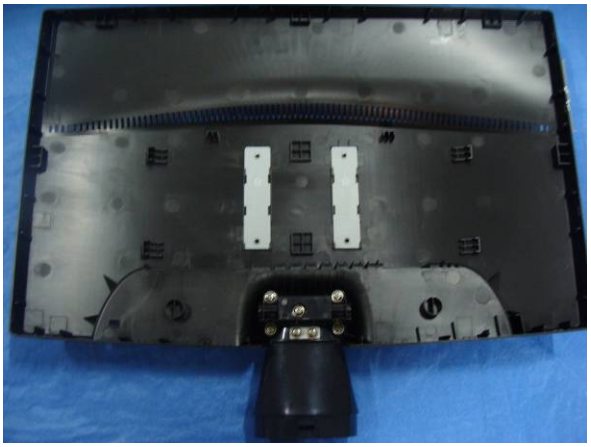
#13



Rear cover and hinge ASS'Y.

#14

Disassemble the rear cover and hinge ASS'Y.

#15

Disassemble the hinge and stand.

#16

Hinge top, hinge and stand.

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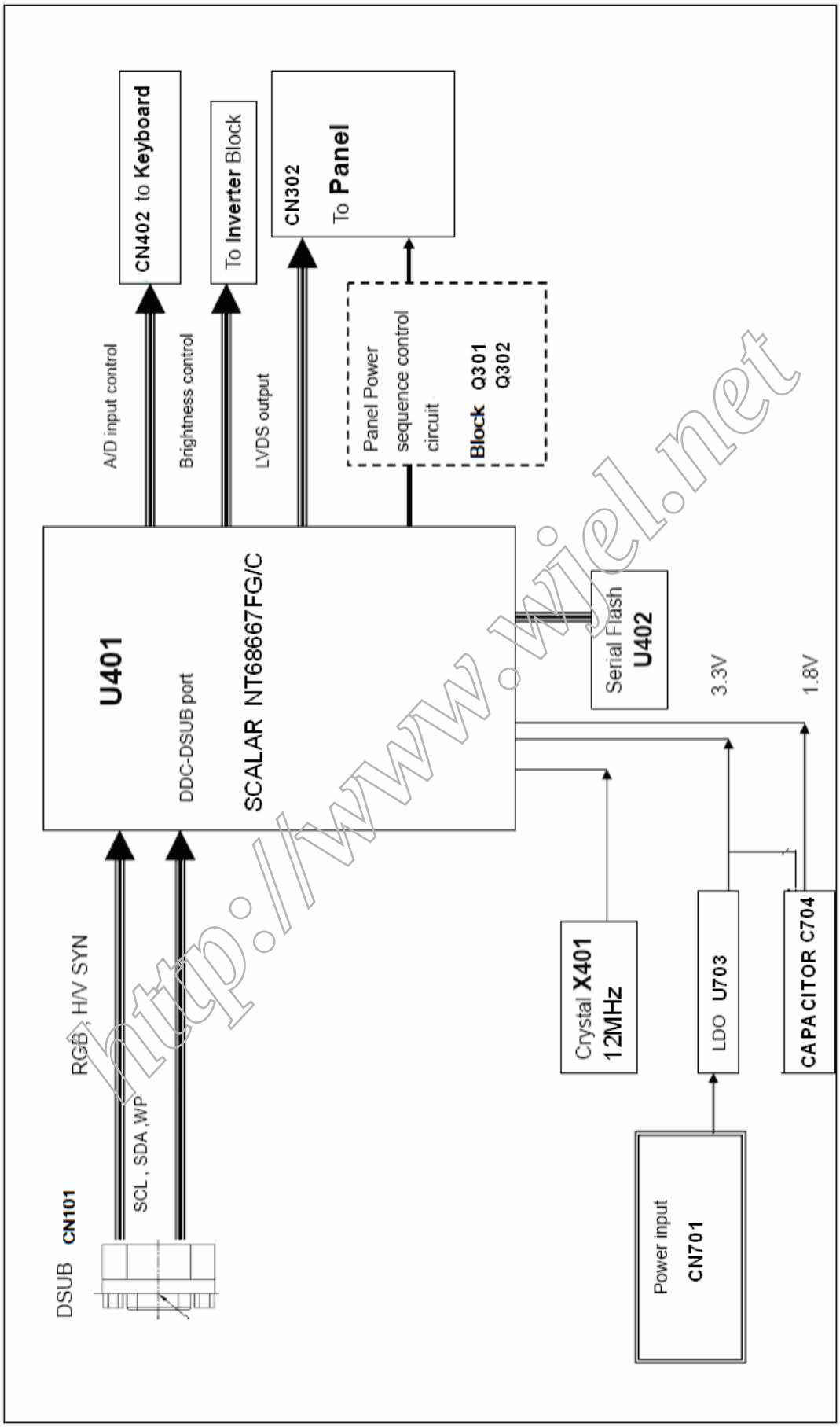
BLOCK DIAGRAM



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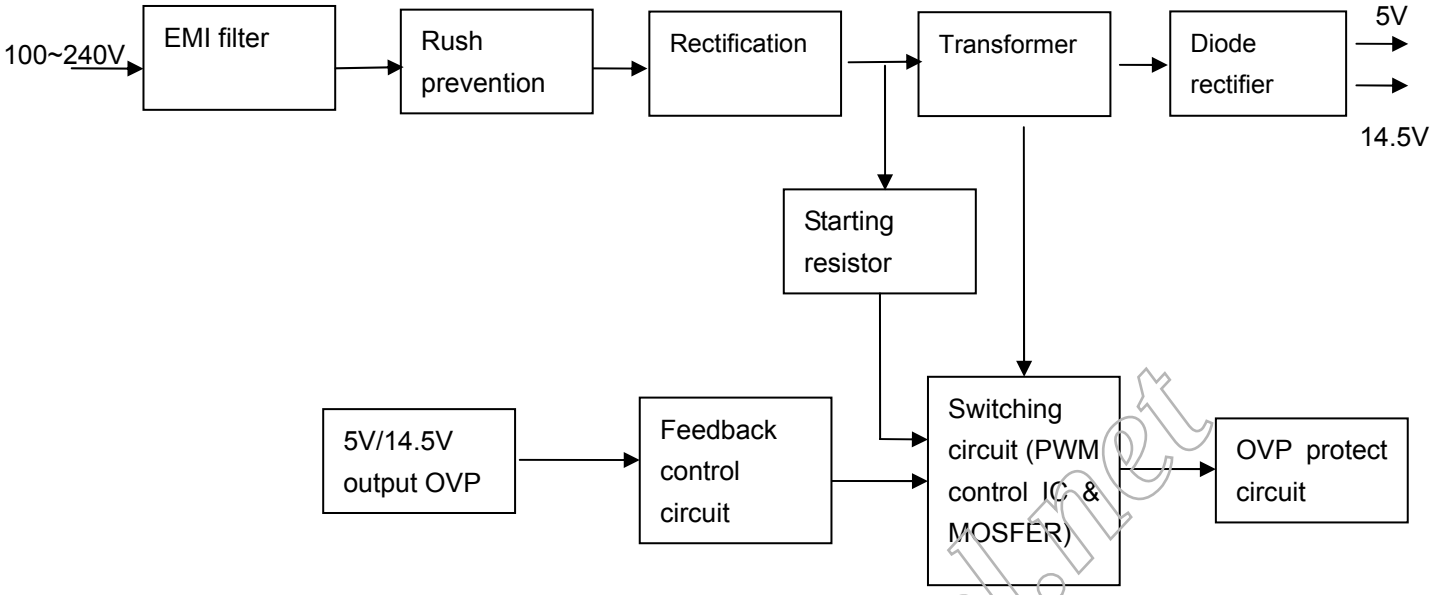
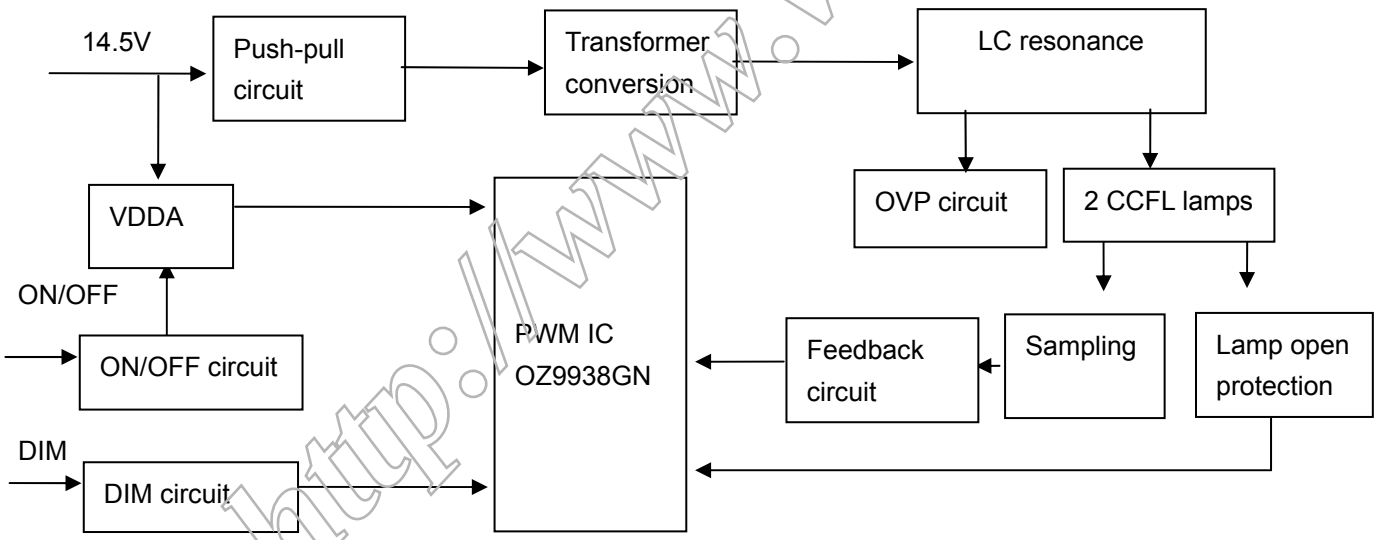
BLOCK DIAGRAM-POWER

Power



Inverter



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DESCRIPTION OF BLOCK DIAGRAM

1. Video Controller Part.

This part amplifies the level of video signal for the digital conversion and converts from the analog video signal to the digital video signal using a pixel clock.

The pixel clock for each mode is generated by the PLL.

The range of the pixel clock is from 25MHz to 85.5MHz.

This part consists of the Scalar, ADC converter, TMDS receiver and LVDS transmitter.

The Scalar gets the video signal converted analog to digital, interpolates input to 1360 X 768 resolution signal and outputs 8-bit R, G, B signal to transmitter.

2. Power Part.

This part consists of the one 3.3V, and one 1.8V regulators to convert power which is provided 5V in Power board.

14.5V is provided for inverter, 5V is provided for LCD panel.

Also, 5V is converted 3.3V and 1.8V by regulator. Converted power is provided for IC in the main board.

The inverter converts from DC 14.5V to AC 700Vrms and operates back-light lamps of module.

3. MICOM Part.

This part is including video controller part. And this part consists of Reset IC and the Micom.

The Micom distinguishes polarity and frequencies of the H/V sync are supplied from signal cable.

The controlled data of each mode is stored in scalar.

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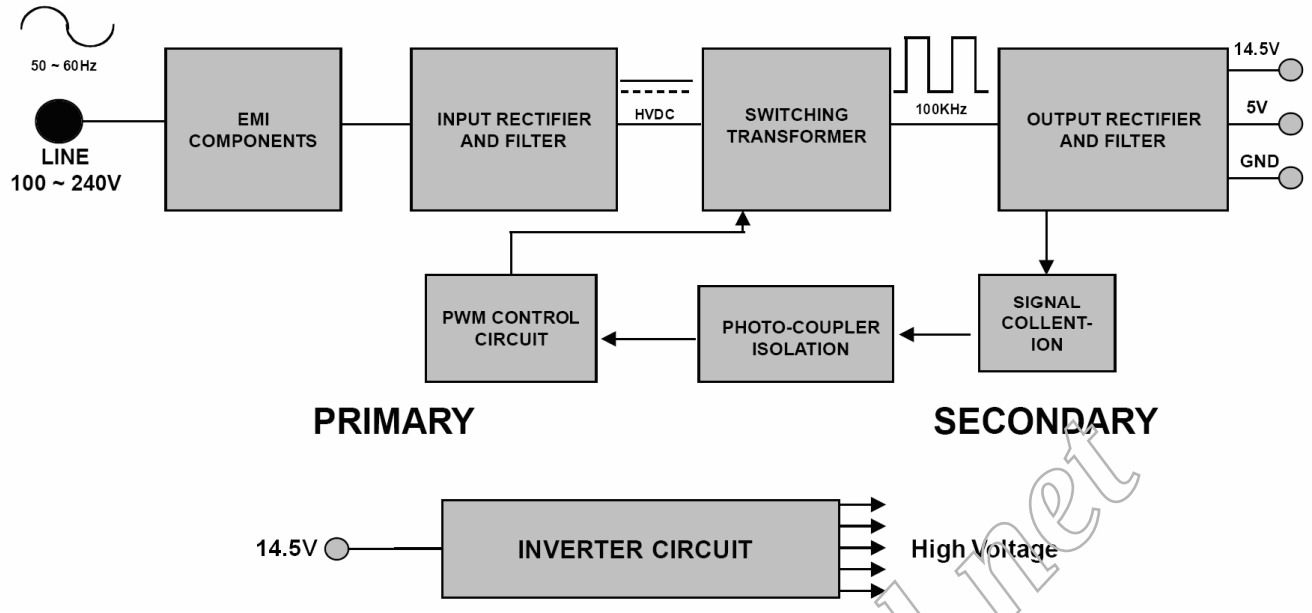
LIPS Board Block Diagram



Operation description_LIPS

1. EMI components.

This part contains of EMI components to comply with global marketing EMI standards like FCC, VCCI CISPR, the circuit included a line-filter, across line capacitor and of course the primary protection fuse.

2. Input rectifier and filter.

This part function is for transfer the input AC voltage to a DC voltage through a bridge rectifier and a bulk capacitor.

3. Energy Transfer.

This part function is for transfer the primary energy to secondary through a power transformer.

4. Output rectifier and filter.

This part function is to make a pulse width modulation control and to provide the driver signal to power switch, to adjust the duty cycle during different AC input and output loading condition to achieve the dc output stabilized, and also the over power protection is also monitor by this part.

5. Photo-Coupler isolation.

This part function is to feed back the DC output changing status through a photo transistor to primary controller to achieve the stabilized DC output voltage.

6. Signal collection.

This part function is to collect the any change from the DC output and feed back to the primary through photo transistor.

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ADJUSTMENT

Windows EDID V1.0 User Manual

Operating System: DOS, windows98, 2000, XP

1. Parallel port setting

Enter your bios, and do as followings.

a) Integrated peripheral

b) Super IO Device

c) Parallel port mode

you should set the" parallel port mode" to SPP for using the DOS EDID tool surely.

2. EDID Write

1、Connect the signal line of monitor with DDC recorder.

2、Choose the DDC RECORD program, and it shows on the screen, the choose the correct source base on the monitor.

3、Click "LoadFile" ,then key in the **manufacturer name、model name、product code,** then choose the correct model name base on the monitor.(as Fig.2)

4、Scan serial No. to DDC recorder by Bar Reader, then read again in the Verify SN.

5、According to the message of DDC program, when the picture as fig.1 appears, it show DDC record has finished.

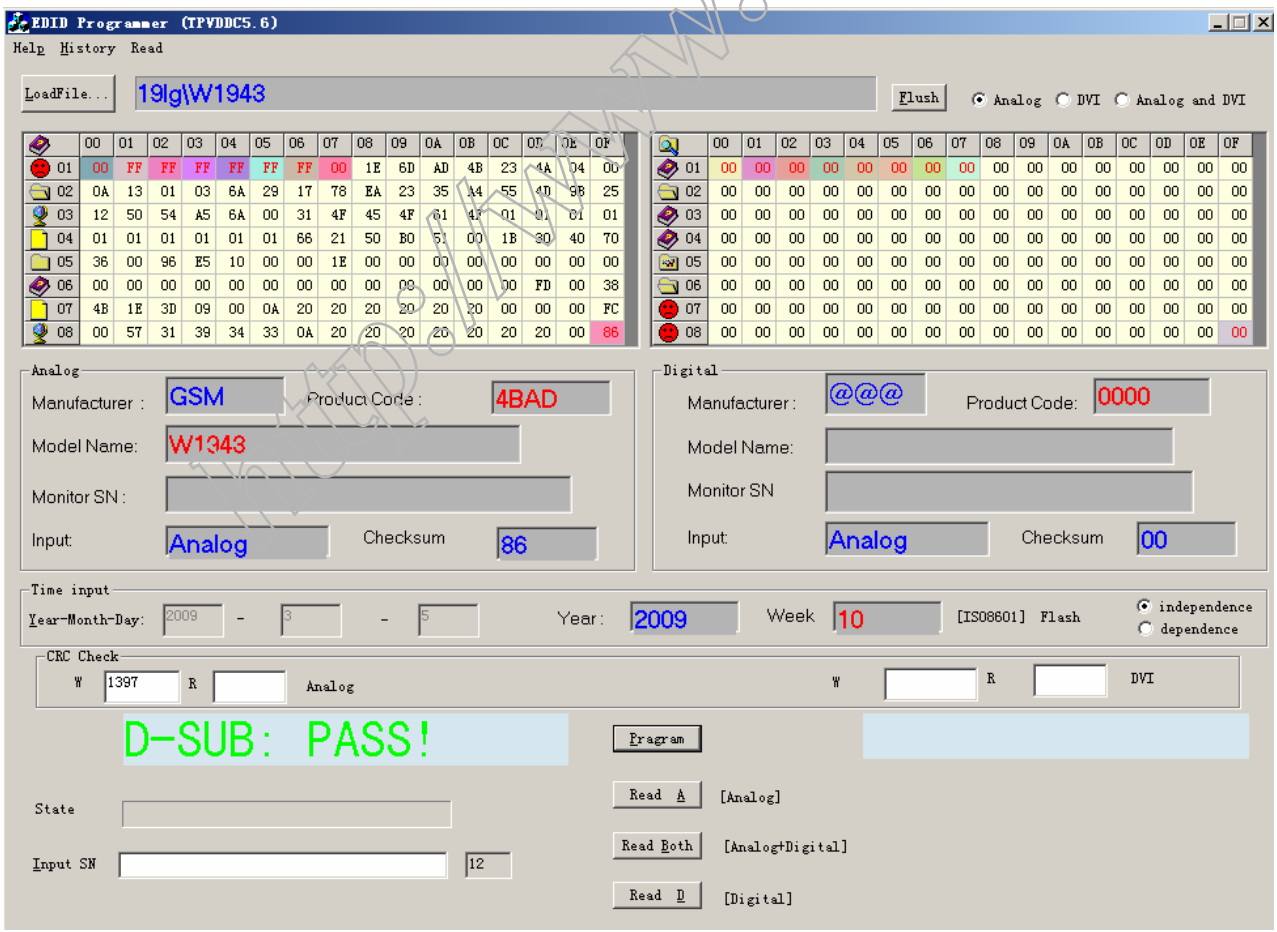

Fig.1

Please check **Manufacturer Name、Vendor Assigned Code、Monitor Name、Serial Number**：*****[???????? ******] (it must be the same as Bar Code)、 **Week of Manufacture**：**、**Year of Manufacture**：****、**Check sum**：** (It must be the same as the last byte of data table, as follows picture shows). Above of all must be right, then if it shows the green “PASS”, it means record succeeds ,the red “Fail” means record fails; then check the power supply and signal line, and ensure they are connected well ,then do DDC record again from the third step.

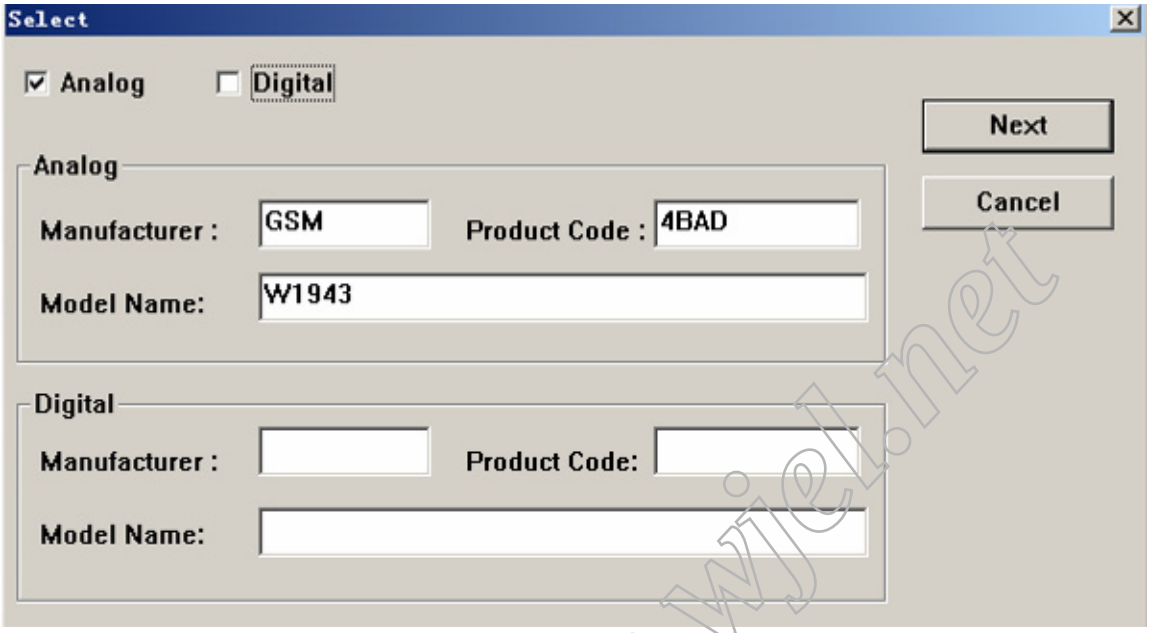

Fig.2

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SERVICE MODE

1) Turn off the power switch at the front side of the display.
2) Wait for about 5 seconds and press MENU, POWER switch with 1 second interval.
3) The SVC OSD menu contains additional menus that the User OSD menu as described below.

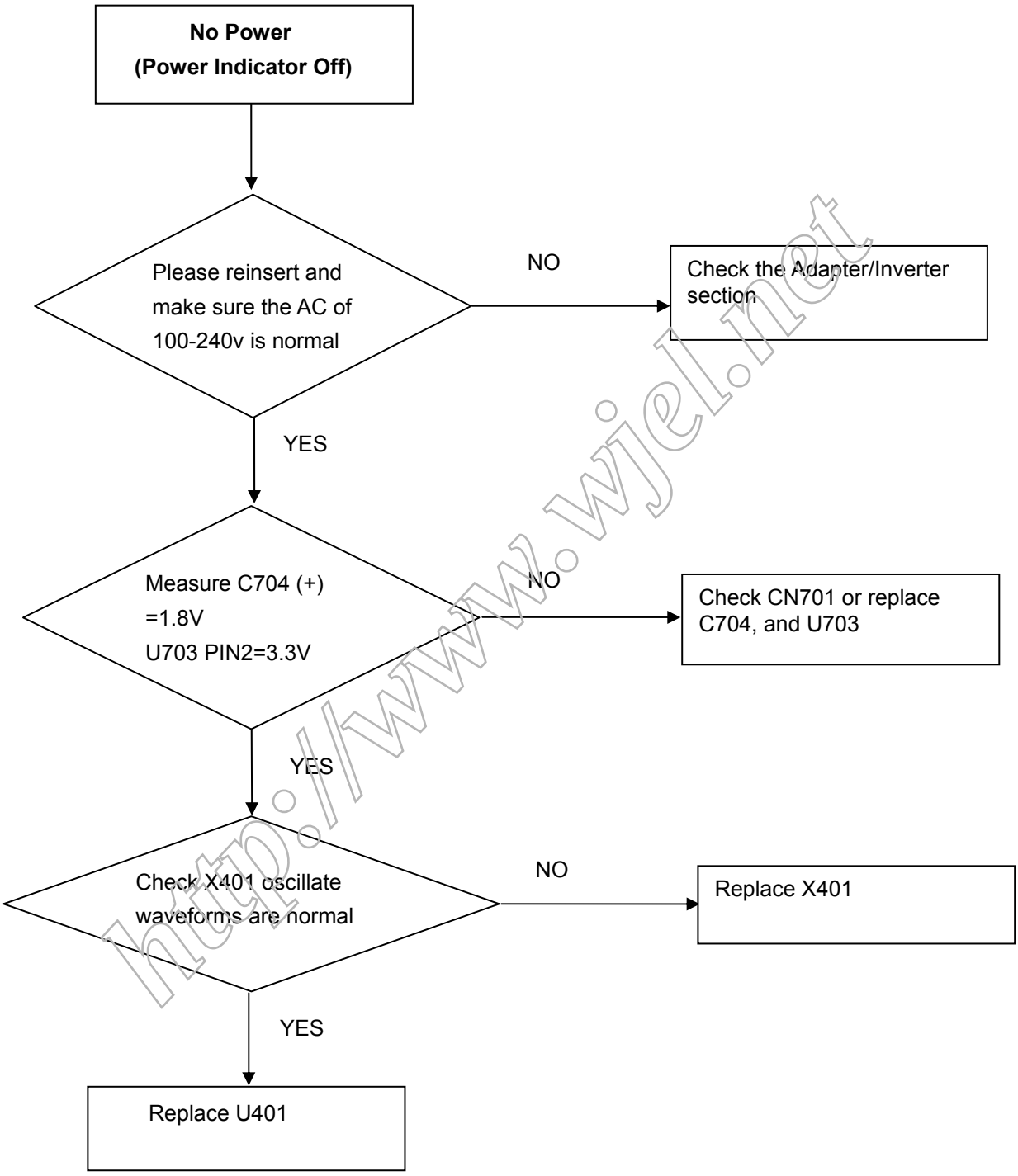
a) CLEAR ETI: To initialize using time.
b) Auto Color: W/B balance and automatically sets the gain and offset value.
c) AGING: Select Aging mode (on/off).
d) PANEL: used panel type
e) NVRAM INIT: NO
f) R/G/B-9300K: Allows you to set the R/G/B-9300K value manually.
g) R/G/B-6500K: Allows you to set the R/G/B-6500K value manually.
h) R/G/B-Offset: Allows you to set the R/G/B-Offset value manually. (Analog Only)
i) R/G/B-Gain: Allows you to set the R/G/B-Gain value manually. (Analog Only)

http://www.wjel.net

Figure 1 Cable Connection for Micom uploading

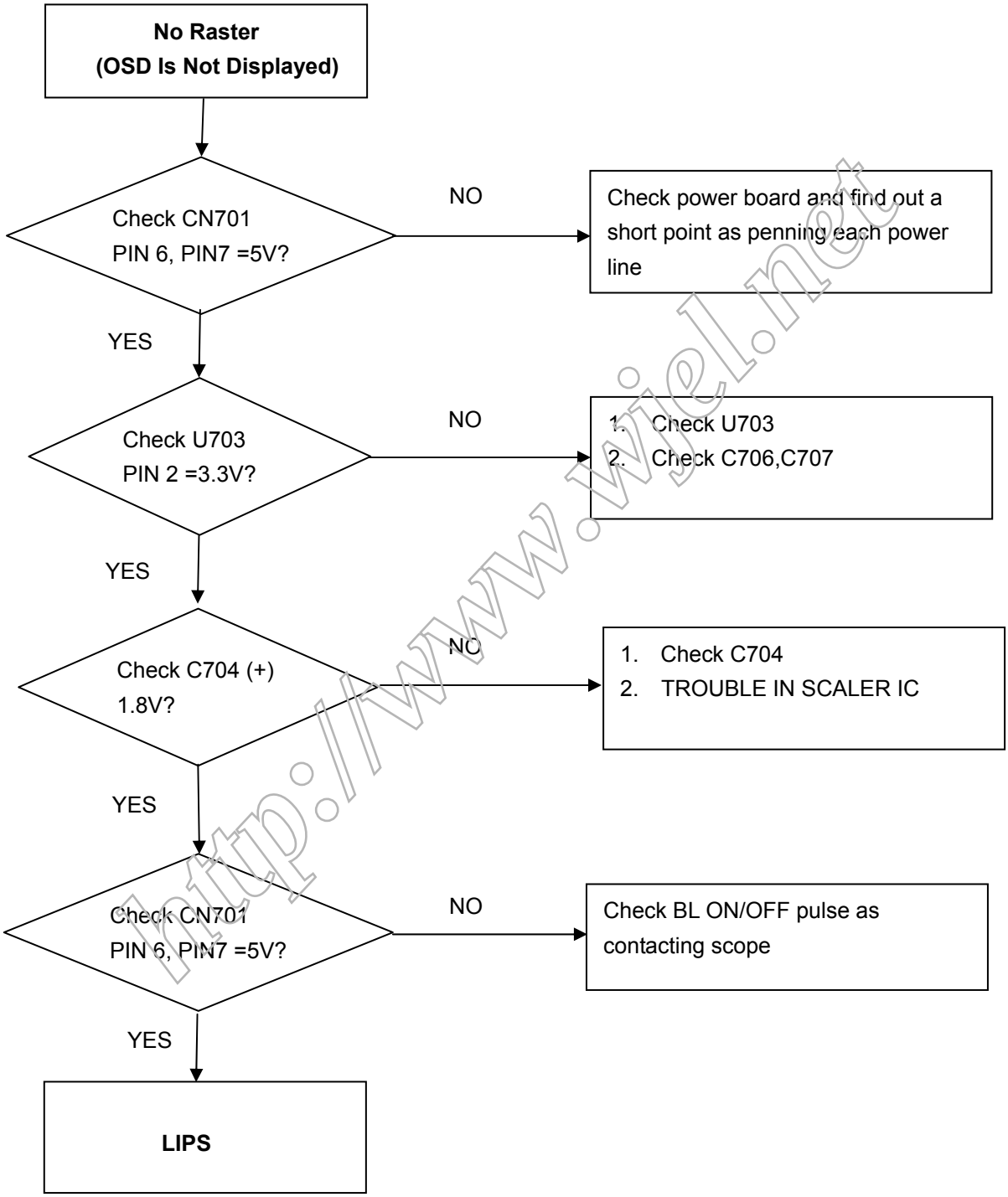
TROUBLESHOOTING GUIDE

1. NO POWER



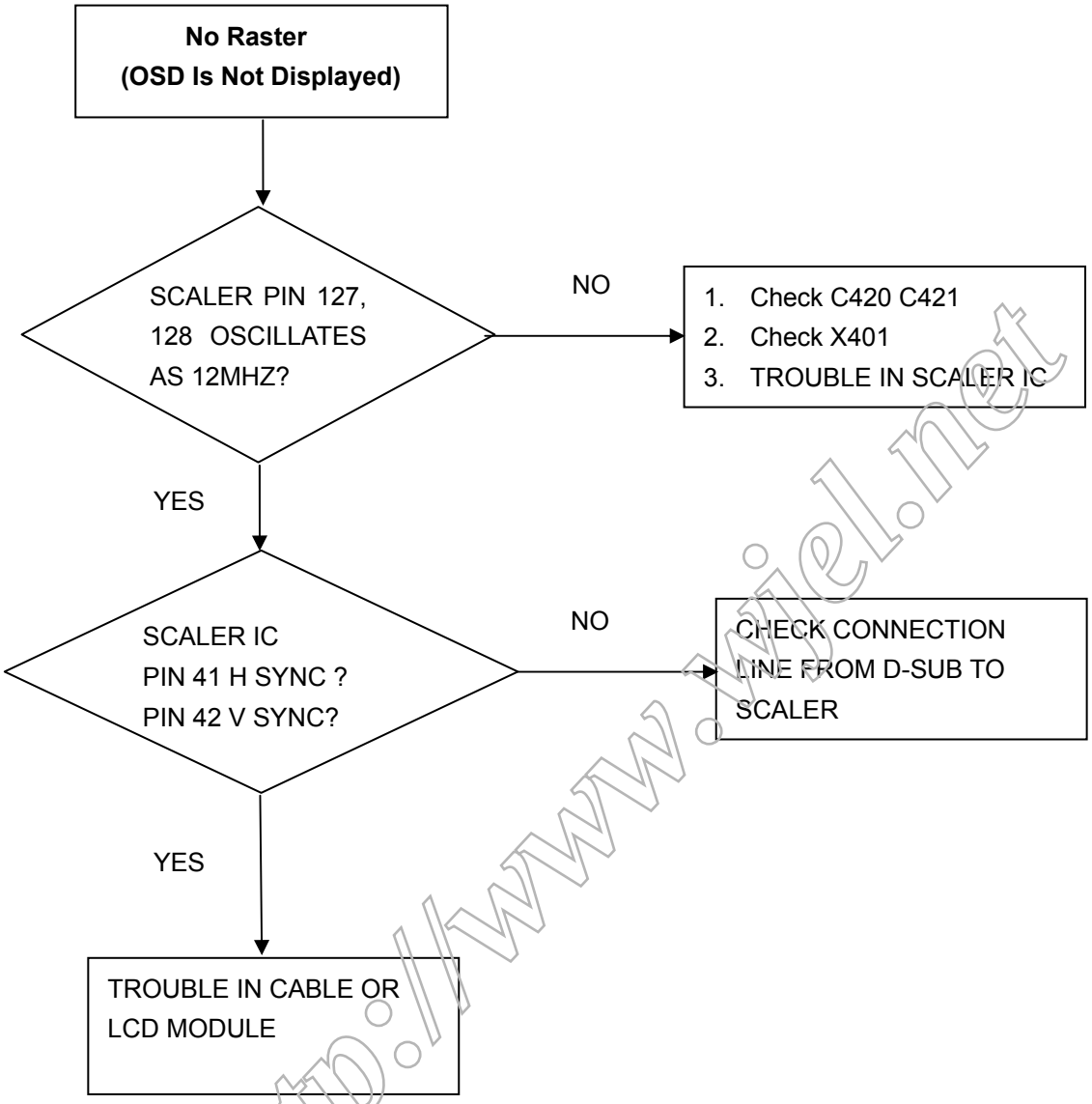
http://www.wjel.net

2. NO RASTER (OSD IS NOT DISPLAY)-LIPS



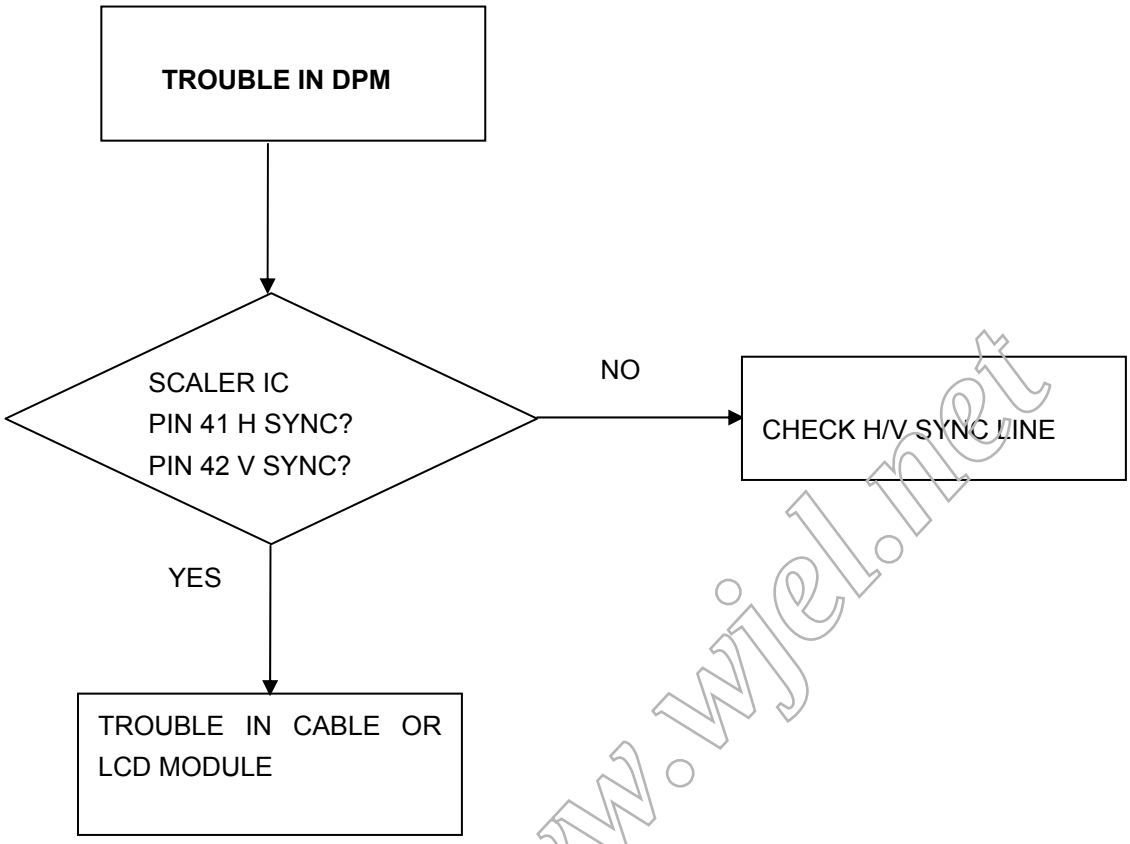
http://www.wiel.net

3. NO RASTER (OSD IS NOT DISPLAY)-MSTAR



http://www.wiel.net

4. TROUBLE IN DPM



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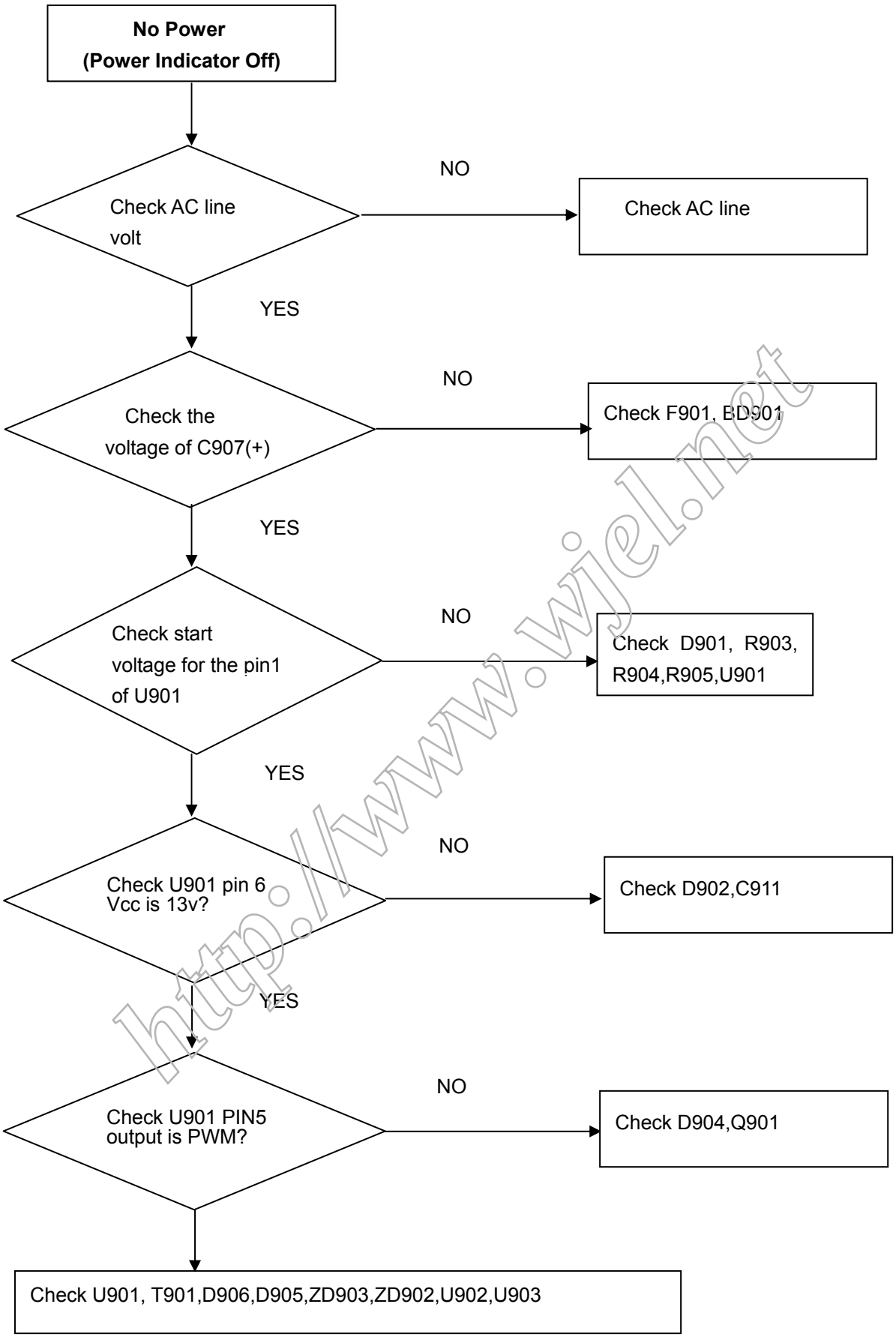
5. POWER



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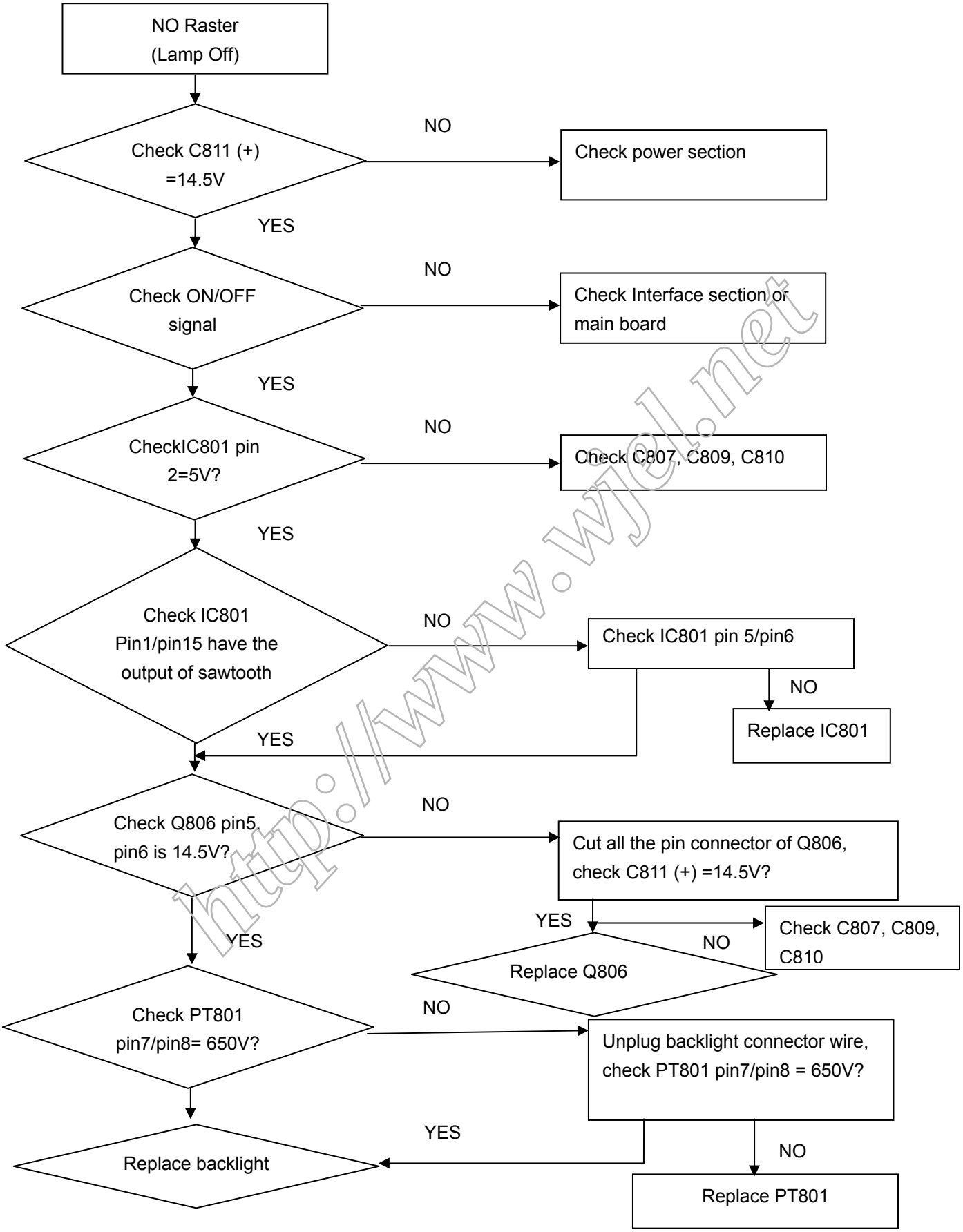
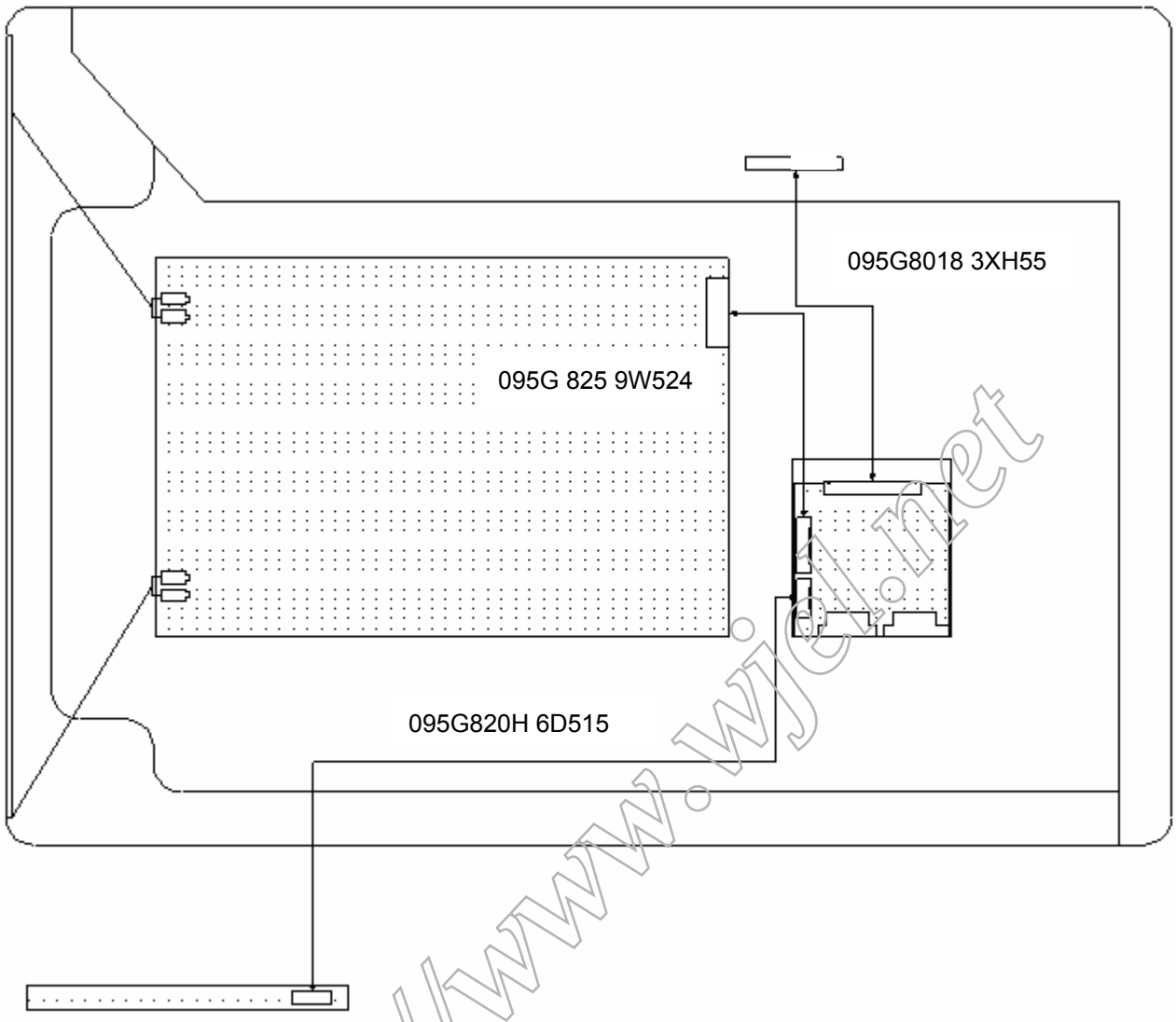
6. RASTER



http://www.wjel.net

WIRING DIAGRAM



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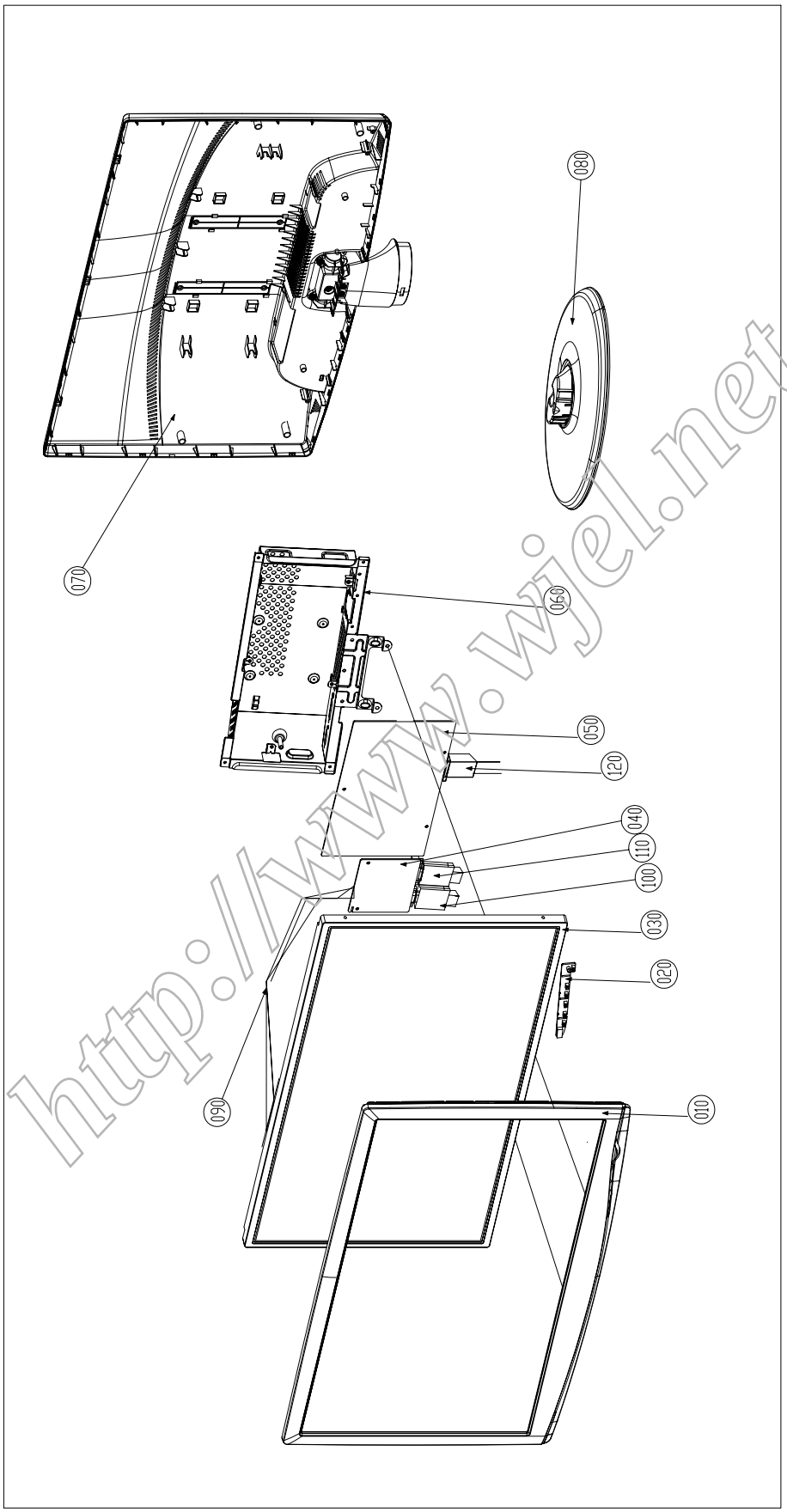
EXPLODED VIEW



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EXPLODED VIEW PARTS LIST

Ref. No.	TPV Part No.	LGE Part No.	Description
010	705GQ9CS014	ACQ74060001	BEZEL ASSY
020	KEPC8QG2	EBU60704501	KEY BOARD
030	750GLG185W1C12M0LG	EAJ60134501	PANEL LM185WH1-TLC1 NJ LGD
	750GLU185X1012N000	EAJ59066901	PANEL M185XW01 V00 SZ AUO
		EAJ59066902	
040	756GQ8CB KL010	EBU60705001(FOR LGD MODULE)	MAIN BOARD-CBPCRNDLGQ1
	756GQ8CB KL011	EBU60704601(FOR AUO MODULE)	MAIN BOARD-CBPCRNDLGQ1
050	PWPC8921MYE1	EBU60704301	POWER BOARD
060	Q15G0414101	MDQ61891301	MAINFRAME
	Q15G0414301	MDQ61891302	MAINFRAME
070	705GQ934026	ACQ74060101	REAR COVER/HINGE ASS'Y
	705GQ934028	ACQ74060102	REAR COVER/HINGE ASS'Y
080	705GQ9CS015	ACQ74060201	BASE ASSY
090	095G8018 3XH55	COV30101401	LVDS CABLE
100	089G 728HAA 2G	NA	SIGNAL CABLE
110	089G1748CAA AC	NA	SIGNAL CABLE DVI COMLINK
120	089G421A18N IS	EAD37992101	POWER CORD

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REPLACEMENT PARTS LIST

CAUTION: BEFORE REPLACING ANY OF THESE COMPONENTS,
READ CAREFULLY THE **SAFETY PRECAUTIONS** IN THIS MANUAL.
MAIN BOARD AND POWER BOARD PARTS ARE DIFFERENT.
* NOTE : **S** SAFETY Mark ⚠
AL ALTERNATIVE PARTS

DATE: 2009. 3. 6

T8RGNDNBMWLFHN

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION
MAIN BOARD				
CAPACITOR				
		C102	065G0402473 12	CHIP 0.047UF 16V X7R
		C103	065G0402220 31	CHIP 22PF 50V NPO
		C104	065G0402220 31	CHIP 22PF 50V NPO
		C105	065G0402509 31	CHIP 5PF 50V NPO
		C106	065G0402473 12	CHIP 0.047UF 16V X7R
		C107	065G0402102 32	1000PF +-10% 50V X7R
		C108	065G0402473 12	CHIP 0.047UF 16V X7R
		C109	065G0402509 31	CHIP 5PF 50V NPO
		C110	065G0402473 12	CHIP 0.047UF 16V X7R
		C111	065G0402473 12	CHIP 0.047UF 16V X7R
		C113	065G0402509 31	CHIP 5PF 50V NPO
		C114	065G0402473 12	CHIP 0.047UF 16V X7R
		C115	065G040210412T	CHIP 0.1UF 16V X7R
		C117	065G0402224 17	CAP CER 0.22UF -20%-80%
		C301	065G040210412T	CHIP 0.1UF 16V X7R
		C302	065G0402224 17	CAP CER 0.22UF -20%-80%
		C303	065G0603105 12	CHIP 1UF 16VX7R 0603
		C304	065G040210412T	CHIP 0.1UF 16V X7R
		C305	067G 2151014PB	EC 100UF M 25V 6.3*11MM
		C401	065G0402224 17	CAP CER 0.22UF -20%-80%
		C403	065G060310517T	MLCC 0603 CAP 1UF Z 16V Y5V
		C404	065G060310517T	MLCC 0603 CAP 1UF Z 16V Y5V
		C406	065G040210412T	CHIP 0.1UF 16V X7R
		C407	065G040210412T	CHIP 0.1UF 16V X7R
		C410	065G040210412T	CHIP 0.1UF 16V X7R
		C412	065G040210412T	CHIP 0.1UF 16V X7R
		C413	065G040210412T	CHIP 0.1UF 16V X7R
		C420	065G0402220 31	CHIP 22PF 50V NPO
		C421	065G0402220 31	CHIP 22PF 50V NPO
		C422	065G040210412T	CHIP 0.1UF 16V X7R
		C423	065G040210412T	CHIP 0.1UF 16V X7R
		C430	065G040210412T	CHIP 0.1UF 16V X7R
		C431	065G040210412T	CHIP 0.1UF 16V X7R
		C434	065G040210412T	CHIP 0.1UF 16V X7R

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		C435	065G040210412T	CHIP 0.1UF 16V X7R
		C438	065G0805105 12	1UF +-10% 6V X7R
		C439	065G060310517T	MLCC 0603 CAP 1UF Z 16V Y5V
		C440	065G0805475A7Z	CAP CHIP 4.7UF 10V Y5V -20%~+80%
		C442	065G040210412T	CHIP 0.1UF 16V X7R
		C446	065G040210412T	CHIP 0.1UF 16V X7R
		C447	065G040210412T	CHIP 0.1UF 16V X7R
		C448	065G060310517T	MLCC 0603 CAP 1UF Z 16V Y5V
		C702	065G040210412T	CHIP 0.1UF 16V X7R
		C704	067G 2151014PB	EC 100UF M 25V 6.3*11MM
		C707	067G 2151014PB	EC 100UF M 25V 6.3*11MM
		C708	065G040210412T	CHIP 0.1UF 16V X7R
		C709	065G040210412T	CHIP 0.1UF 16V X7R
DIODE				
		D102	093G 64 42 PP	BAV70 SOT-23
		ZD104	093G 39GA01 T	RLZ5.6B
IC				
		U102	056G1133 34 1	IC M24C02-RMN6TP 2KB SO-8
		U103	056G 662502	IC ESD AZC199-04S SOT23-6L
		U104	056G 662502	IC ESD AZC199-04S SOT23-6L
		U105	056G 662502	IC ESD AZC199-04S SOT23-6L
		U106	056G 662502	IC ESD AZC199-04S SOT23-6L
		U107	056G 662502	IC ESD AZC199-04S SOT23-6L
		U401	056G 562584	IC NT68667FG/C QFP-128L
		U402	056G1133 81	SST25LF020A-33-4C-SAE
		SMTCR-U402	100GKNG8001N11	MCU ASS'Y-056G1133 81
		U703	056G 563 52	IC AP1117D33L-13 TO252-3L DIODES
TRANSISTOR				
		Q301	057G 763 1	A03401 SOT23 BY AOS(A1)
		Q302	057G 417 12 T	KEC 2N3904S-RTK/PS
		Q401	057G 417 13 T	KEC 2N3906S-RTK/PS
		Q701	057G 417 12 T	KEC 2N3904S-RTK/PS
RESISTOR				
		R101	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R102	061G0603000	RST CHIP MAX 0R05 1/10W
		R103	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R104	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R105	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R106	061G0402222	RST CHIPR 2.2 KOHM +-5% 1/16W
		R107	061G0402222	RST CHIPR 2.2 KOHM +-5% 1/16W
		R108	061G0402750	RST CHIPR 75 OHM +-5% 1/16W
		R109	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R110	061G0402471	RST CHIPR 470 OHM +-5% 1/16W
		R111	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R112	061G0402750	RST CHIPR 75 OHM +-5% 1/16W
		R113	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R114	061G0402101	RST CHIPR 100 OHM +-5% 1/16W

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		R115	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R116	061G0402750	RST CHIPR 75 OHM +-5% 1/16W
		R117	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R118	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R119	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R120	061G0402102	RST CHIPR 1 KOHM +-5% 1/16W
		R121	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R122	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R126	061G0402100	RST CHIPR 10 OHM +-5% 1/16W
		R127	061G0402100	RST CHIPR 10 OHM +-5% 1/16W
		R128	061G0402100	RST CHIPR 10 OHM +-5% 1/16W
		R129	061G0402100	RST CHIPR 10 OHM +-5% 1/16W
		R130	061G0402100	RST CHIPR 10 OHM +-5% 1/16W
		R131	061G0402100	RST CHIPR 10 OHM +-5% 1/16W
		R132	061G0402100	RST CHIPR 10 OHM +-5% 1/16W
		R134	061G0402100	RST CHIPR 10 OHM +-5% 1/16W
		R136	061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W
		R137	061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W
		R138	061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W
		R139	061G0402102	RST CHIPR 1 KOHM +-5% 1/16W
		R141	061G0402102	RST CHIPR 1 KOHM +-5% 1/16W
		R142	061G0402000 Y	RST CHIP MAX 0R05 1/16W YAGEO
		R143	061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W
		R144	061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W
		R301	061G1206221	RST CHIPR 220 OHM +-5% 1/4W
		R302	061G1206221	RST CHIPR 220 OHM +-5% 1/4W
		R303	061G0402472	RST CHIPR 4.7 KOHM +-5% 1/16W
		R304	061G0402223	RST CHIPR 22 KOHM +-5% 1/16W
		R305	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R306	061G0402563	RST CHIP 56K 1/16W 5%
		R308	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R401	061G0402470 0F	RST CHIPR 0402 470 OHM +-1% 1/16W
		R402	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R403	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R404	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R405	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R407	061G0402203	RST CHIP 20K 1/16W 5%
		R409	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R413	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R415	061G0402102	RST CHIPR 1 KOHM +-5% 1/16W
		R416	061G0402102	RST CHIPR 1 KOHM +-5% 1/16W
		R417	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R418	061G0402121	RST CHIP 120R 1/16W 5%
		R419	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		R438	061G0402000	RST CHIP MAX 0R05 1/16W
		R439	061G0402000	RST CHIP MAX 0R05 1/16W
		R444	061G0402392	RST CHIP 3.9K 1/16W 5%

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		R445	061G0402392	RST CHIP 3.9K 1/16W 5%
		R446	061G0402000	RST CHIP MAX 0R05 1/16W
		R462	061G0402105	RST CHIPR 1MOHM +-5% 1/16W
		R465	061G0402222	RST CHIPR 2.2 KOHM +-5% 1/16W
		R466	061G0402000	RST CHIP MAX 0R05 1/16W
		R468	061G0603101	RST CHIPR 100 OHM +-5% 1/10W
		R702	061G0402102	RST CHIPR 1 KOHM +-5% 1/16W
		R704	061G0402223	RST CHIPR 22 KOHM +-5% 1/16W
		R705	061G0402102	RST CHIPR 1 KOHM +-5% 1/16W
		R706	061G0402101	RST CHIPR 100 OHM +-5% 1/16W
		R708	061G0402103	RST CHIPR 10 KOHM +-5% 1/16W
		FB101	071G 59K190 B	19 OHM BEAD
		FB102	071G 59K190 B	19 OHM BEAD
		FB103	071G 59K190 B	19 OHM BEAD
		FB105	071G 59B121	TB160808B
		FB301	071G 56K121	CHIP BEAD
		FB401	071G 56G301 EA	BEAD 300 OHM
		FB403	071G 56V301 B	CHIP BEAD FCM2012VF-301T07 BULLWILL
		FB404	071G 56G301 EA	BEAD 301 OHM
		FB406	071G 56V301 B	CHIP BEAD FCM2012VF-301T07 BULLWILL
		FB407	071G 56G301 EA	BEAD 302 OHM
OTHER				
		X401	093G 2251B J	NXS12.000AC30F-BT-2
		CN101	088G 35315F XH	D-SUB 15PIN VERTICAL CONN WITH SCREW
		CN102	088G 35424F N	DVI 24PIN CONN F WITH SCREW
		CN302	033G8027 30 H	WAFER 30P 2.0MM RIGHT ANGLE
		CN402	033G3802 7B Y	CONNECTOR 7P 2.0 DIP
		CN701	033G3802 9B Y W	WAFER
POWER BOARD				
CAPACITOR				
		C804	065G080510522K T	CAP CHIP 0805 1UF K 25V X7R
		C805	065G0805222 31	0805 2200PF
		C806	065G080510522K T	CAP CHIP 0805 1UF K 25V X7R
		C807	065G0805103 32	CAP CHIP 0805 10NF K 50V X7R
		C808	061G0805184	RST CHIPR 180K OHM +-5% 1/8W
		C809	065G0805473 32	CHIP 0.047UF 50V X7R
		C810	065G080556131G	MLCC 0805 560PF G 50V NPO
		C811	067G215P4714AV	CAP 105℃ 470UF M 25V
		C813	065G0805102 31	CAP CHIP 0805 1000PF J 50V NPO
		C814	065G0805105 22	CAP CHIP 0805 1UF K 25V X7R
		C819	065G0805473 32	CHIP 0.047UF 50V X7R
		C820	065G0805392 31	CHIP 3900PF 50V X7R 0805
		C825	065G 6J1206ET	12PF 5% SL 6KV TDK
		C826	065G 3J3096ET	3PF,J,3KV,Z5P
		C828	065G0805104 32	CAP CHIP 0805 0.1UF K 50V X7R
		C833	065G060347141J Y	CAP CHIP 0603 470PF J 100V NPO
		C834	065G060347141J Y	CAP CHIP 0603 470PF J 100V NPO

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		C837	065G0805391 31	CHIP 390PF 50V
		C838	065G0805473 32	CHIP 0.047UF 50V X7R
		C839	065G 3J3096ET	3PF,J,3KV,Z5P
		C841	065G0805392 31	CHIP 3900PF 50V X7R 0805
		C900	065G306M3322BP	3300PF 20%
		C901	065G306M1022BP	1000PF Y1.CAP
		C902	065G306M1022BP	1000PF Y1.CAP
		C903	063G107K474 US	0.47UF +-10%
		C903	006G 31502	1.5MM RIVET
		C905	067G215S10915T L	LOW ESR EC 1UF 450V M 8*11.5MM
		C906	065G1206104 32	CHIP 0.1UF 25V X7R 1206
		C907	067G215Z10115P	CAP 105℃ 100UF M 450V
		C907	006G 31502	1.5MM RIVET
		C908	065G0603103 12	CHIP 0.01UF 16V X7R
		C909	065G0603471 32	CHIP 470PF 50V X7R
		C910	065G0603104 22	CAP CHIP 0603 0.1UF K 25V X7R
		C911	067G215Y4707KT	47UF 50V
		C912	065G 2K152 2T6921	CAP CER 1500PF K 2KV Y5P
		C913	065G1206102 72	CAP CHIP 1206 1000PF K 500V X7R
		C914	065G1206102 72	CAP CHIP 1206 1000PF K 500V X7R
		C915	065G0603104 12	CER2 0603 X7R 16V 100N P
		C916	065G0603102 32	1000PF +-10% 50V X7R
		C917	067G215P1024AV	CAP 105℃ 1000UF M 25V
		C918	067G215P1023AV	CAP 105℃ 1000UF M 16V
		C919	067G215P1023AV	CAP 105℃ 1000UF M 16V
		C920	067G215P4713AV	CAP 105℃ 470UF M 16V
		C921	065G0603104 12	CER2 0603 X7R 16V 100N P
DIODE				
		BD901	093G 50460 28	BRIDGE DIODE KBP208G LITEON
		D801	093G 64 33	DIO SIG SM BAV99 (PHSE)R
		D802	093G 64 33	DIO SIG SM BAV99 (PHSE)R
		D806	093G 64 33	DIO SIG SM BAV99 (PHSE)R
		D812	093G 6432S	1N4148W
		D901	093G 5212T52T	DIODE 1N4007 DO-41
		D902	093G 6038T52T	FR103
		D903	093G 6026T52T	RECTIFIER DIODE FR107
		D904	093G 64 1152T	1N4148
		D905	093G 60325	DIODE SB5150 5A/150V DO-201AD
		D906	093G3006 1 1	31DQ06FC3 NIHON INTER
		ZD901	093G 3916752T	MTZJ T-72 16B
		ZD902	093G 39S 24 T	RLZ 5.6B LLDS
TRANSISTOR & IC				
		IC801	056G 608 10	IC OZ9938GN-B SOIC-16
		Q806	057G 763 6	AO4828 SOIC-8 BY AOS
		Q811	057G 759 2	RK7002FD5T116 SOT-23 BY ROHM
		Q812	057G 759 2	RK7002FD5T116 SOT-23 BY ROHM
		Q901	057G 667 52	FET 2SK4100LS-T 7A/650V TO-220FI(LS)

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		Q901	057G 667 56	MOSFET 7A/650V FMA07N65GX TO-220F
		Q901	057G 724 11	STP9NK65ZFP
		Q901	006G 31502	1.5MM RIVET
		Q902	057G 761 16	TRA KTD1028 KEC
		U901	056G 379111	IC LD7577 GS SOP-8
		U902	056G 139 3A	IC PC123Y22FZ0F
		U903	056G 158 12	KIA431A-AT/P TO-92
RESISTOR				
		NR901	061G 5810T	RST NTCR 8 OHM +-20% 4A 13MM THINKING
		NR901	006G 31502	1.5MM RIVET
		R807	061G1206220	RST CHIPR 22 OHM +-5% 1/4W
		R808	061G0805473	RST CHIPR 47K OHM +-5% 1/8W
		R810	061G0805105	RST CHIPR 1M OHM +-5% 1/8W
		R812	061G0805103	RST CHIPR 10K OHM +-5% 1/8W
		R813	061G0805105	RST CHIPR 1M OHM +-5% 1/8W
		R814	061G0805105	RST CHIPR 1M OHM +-5% 1/8W
		R815	061G0805104	RST CHIPR 100K OHM +-5% 1/8W
		R816	061G0805105	RST CHIPR 1M OHM +-5% 1/8W
		R817	061G0805200 2F	RST CHIPR 20 KOHM +-1% 1/8W
		R818	061G1206330	RST CHIPR 33 OHM +-5% 1/4W
		R825	061G0805000	RST CHIP MAX 0R05 1/8W
		R826	061G0805150 1F	RST CHIPR 1.5 KOHM +-1% 1/8W
		R829	061G1206330	RST CHIPR 33 OHM +-5% 1/4W
		R836	061G0805102	RST CHIPR 1K OHM +-5% 1/8W
		R837	061G1206220	RST CHIPR 22 OHM +-5% 1/4W
		R841	061G0805487 0F	RST CHIPR 487 OHM +-1% 1/8W
		R842	061G1206220	RST CHIPR 22 OHM +-5% 1/4W
		R846	061G0805511	RST CHIPR 510 OHM +-5% 1/8W
		R847	061G0805105	RST CHIPR 1M OHM +-5% 1/8W
		R858	061G0805751	RST CHIPR 750 OHM +-5% 1/8W
		R900	061G1206624	RST CHIPR 620 KOHM +-5% 1/4W
		R901	061G1206624	RST CHIPR 620 KOHM +-5% 1/4W
		R902	061G1206624	RST CHIPR 620 KOHM +-5% 1/4W
		R903	061G1206335	RST CHIPR 3.3M OHM +-5% 1/4W
		R904	061G1206335	RST CHIPR 3.3M OHM +-5% 1/4W
		R905	061G1206335	RST CHIPR 3.3M OHM +-5% 1/4W
		R906	061G0805104	RST CHIPR 100K OHM +-5% 1/8W
		R908	061G1206203	RST CHIPR 20 KOHM +-5% 1/4W
		R909	061G152M10452T	RST MOFR 100KOHM +-5% 2WS
		R910	061G1206249	RST CHIPR 2.4 OHM +-5% 1/4W
		R911	061G1206100	RST CHIPR 10 OHM +-5% 1/4W
		R912	061G0603100 2F	RST CHIPR 10K OHM +-1% 1/10W
		R913	061G1206221	RST CHIPR 220 OHM +-5% 1/4W
		R914	061G152M68852T SY	RST MOFR 0.68 OHM +-5% 2WS FUTABA
		R915	061G1206101	RST CHIPR 100 OHM +-5% 1/4W
		R916	061G1206101	RST CHIPR 100 OHM +-5% 1/4W
		R917	061G1206101	RST CHIPR 100 OHM +-5% 1/4W

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		R918	061G1206101	RST CHIPR 100 OHM +-5% 1/4W
		R919	061G1206101	RST CHIPR 100 OHM +-5% 1/4W
		R920	061G1206101	RST CHIPR 100 OHM +-5% 1/4W
		R921	061G0805151	RST CHIPR 150 OHM +-5% 1/8W
		R922	061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W
		R923	061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W
		R924	061G152M10152T	RST MOFR 100OHM +-5% 2WS FUTABA
		R925	061G0603471	RST CHIPR 470 OHM +-5% 1/10W
		R926	061G0603100 1F	RST CHIPR 1 KOHM +-1% 1/10W
		R927	061G0805102	RST CHIPR 1K OHM +-5% 1/8W
		R928	061G0603365 1F	RST CHIPR 3.65 KOHM +-1% 1/10W
		R929	061G0805432 2F	RST CHIPR 43.2 KOHM +-1% 1/8W
		R930	061G0603243 1F	RST CHIPR 2.43K OHM +-1% 1/10W
TRANSFORMER				
		PT801	080GL17T 40 H	XFMR INVERTER DADON
		PT801	080GL17T 40 DN	X'FMR TK.2001U.101
		PT801	006G 31502	1.5MM RIVET
		PT801	S80GL17T40V	TRANSFORMER ASS'Y
		T901	080GL17T 47 S	X'FMR 600UH
		T901	006G 31502	1.5MM RIVET
OTHER				
		CN801	033G8021 2E U	INVERT CONNECTOR
		CN802	033G8021 2E U	INVERT CONNECTOR
		CN901	087G 501 32 S	AC SOCKET
		CN901	006G 31500	EYELET
		CN902	095G 825 9W524	WIRE HARNESS 9P(SCN)-9P(2008)120MM
		F901	084G 41004 L	877SERIES 4A 250V
		F901	006G 31502	1.5MM RIVET
		F902	095G 90 23	JUMPER WIRE
		F903	095G 90 23	JUMPER WIRE
		FB901	071G 55 29	FERRITE BEAD
		HS1	090G6064 1	HEAT SINK
		J801	095G 90 23	JUMPER WIRE
		J802	095G 90 23	JUMPER WIRE
		J803	095G 90 23	JUMPER WIRE
		J804	095G 90 23	JUMPER WIRE
		J805	095G 90 23	JUMPER WIRE
		J806	095G 90 23	JUMPER WIRE
		J901	095G 90 23	JUMPER WIRE
		J902	095G 90 23	JUMPER WIRE
		J903	095G 90 23	JUMPER WIRE
		J904	095G 90 23	JUMPER WIRE
		J905	095G 90 23	JUMPER WIRE
		J906	095G 90 23	JUMPER WIRE
		J907	095G 90 23	JUMPER WIRE
		J908	095G 90 23	JUMPER WIRE
		L901	073G 174 65 H2	LINE FILTER 30MH MIN

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		L901	006G 31502	1.5MM RIVET
		L903	073G 253191 H	IND CHOKE 1.1UH DADON
		L904	073G 253191 H	IND CHOKE 1.1UH DADON

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DIFFERENT PARTS LIST

W1943TB		
Diversity of T8RANDNBMWLFHN Compared with T8RGNDNBMWLFHN		
Location	**Part No. for TPV**	**Description**
	705GQ934028	REAR COVER/HINGE ASS'Y
	Q34G0573 B6 3K0100	REAR COVER L185W-9LG
	750GLU185X1012N000	PANEL M185XW01 V00 SZ AUO
	756GQ8CB KL011	MAIN BOARD-CBPCRNDLGQ1
SMTCR-U402	100GKNA8001N11	MCU ASS'Y-056G1133 81
	Q15G0414301	MAINFRAME

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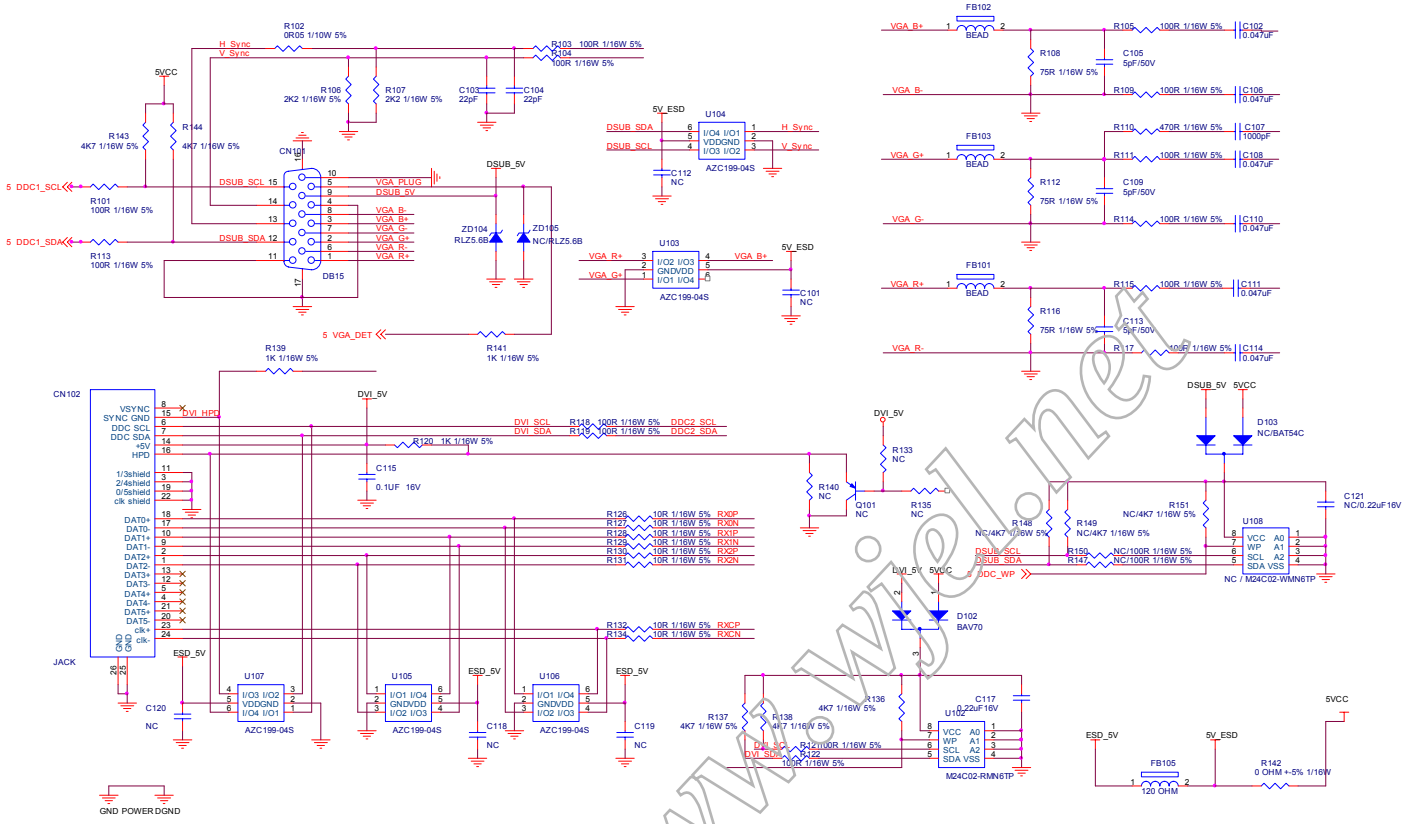
SCHEMATIC DIAGRAM

1. SCALER



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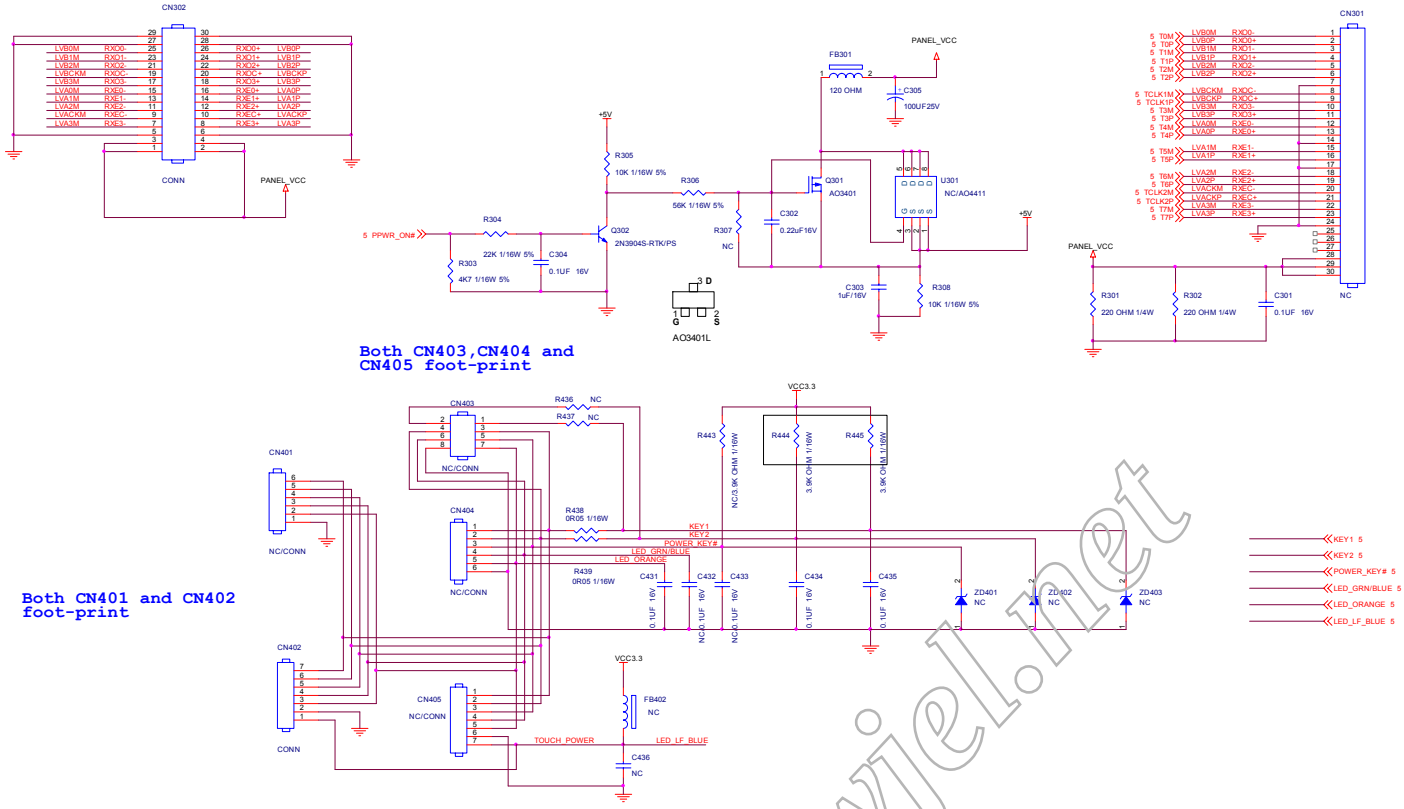
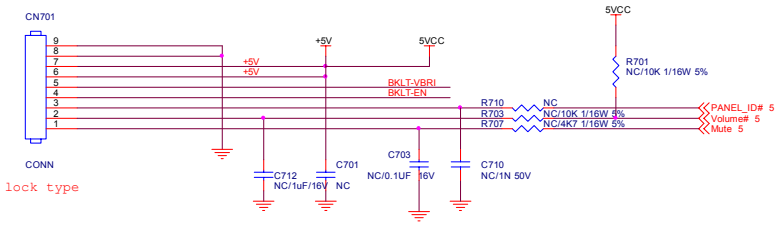
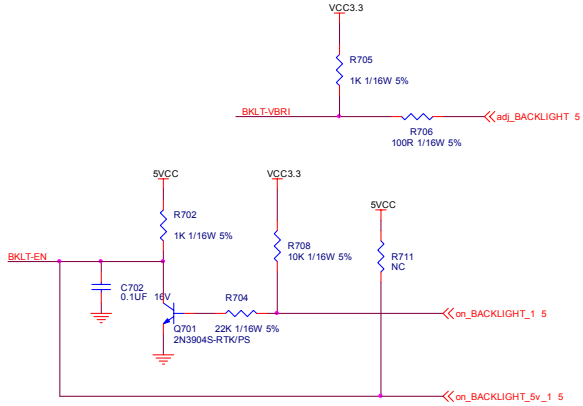


Both CN403,CN404 and CN405 foot-print

Both CN401 and CN402 foot-print

http://www.wjel.net





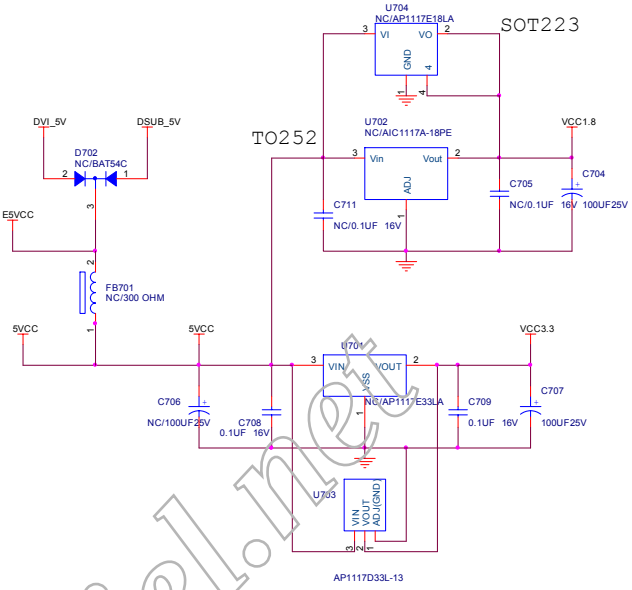
20081210:
use Pin 123 control BL_ON [on_BACKLIGHT_1]:
R446: 0 Ohm; R708: 10K; R704: 22K;R702:1K; Q701:2N3904;C702:0.1uF
R447, R711: NC

use Pin 39 control BL_ON [on_BACKLIGHT_5V_1]:
R447: 0 Ohm; R711: 10K
R446,R708,R704,R702,Q701,C702: NC

ADD R711
LG
20081029

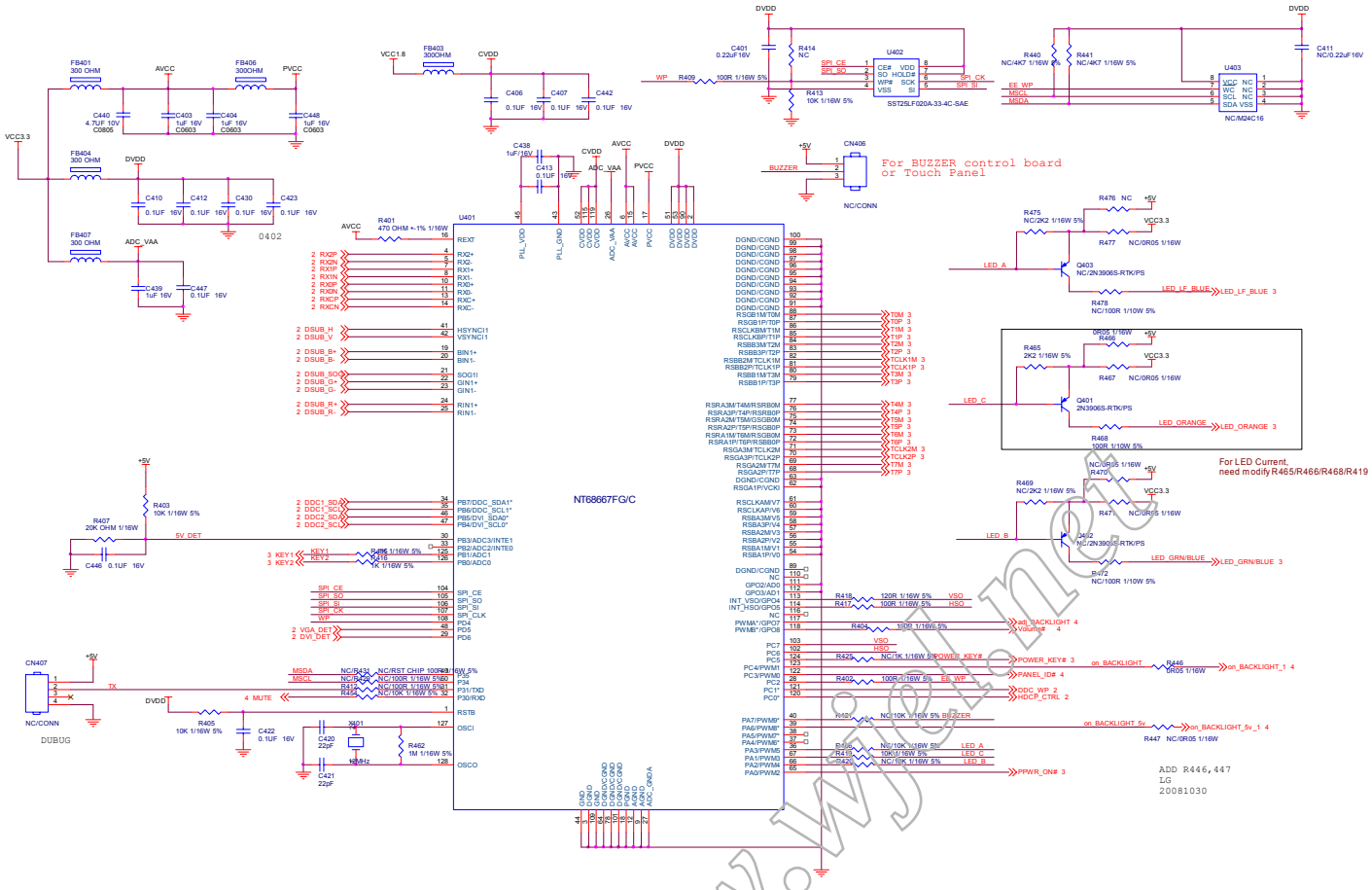
Both 223 and 252 foot-print

NT60670B OPTION



Both 223 and 252 foot-print

http://www.wjel.net


NT68667FG/C
For BUZZER control board or Touch Panel
For LED Current, need modify R465/R466/R468/R419
ADD R446,447
LG
20081030
DUBUG
NC/CONN
SST25LF020A-33-4C-SAE
NC/M24C16
NC/2N3906S-RTK/PS
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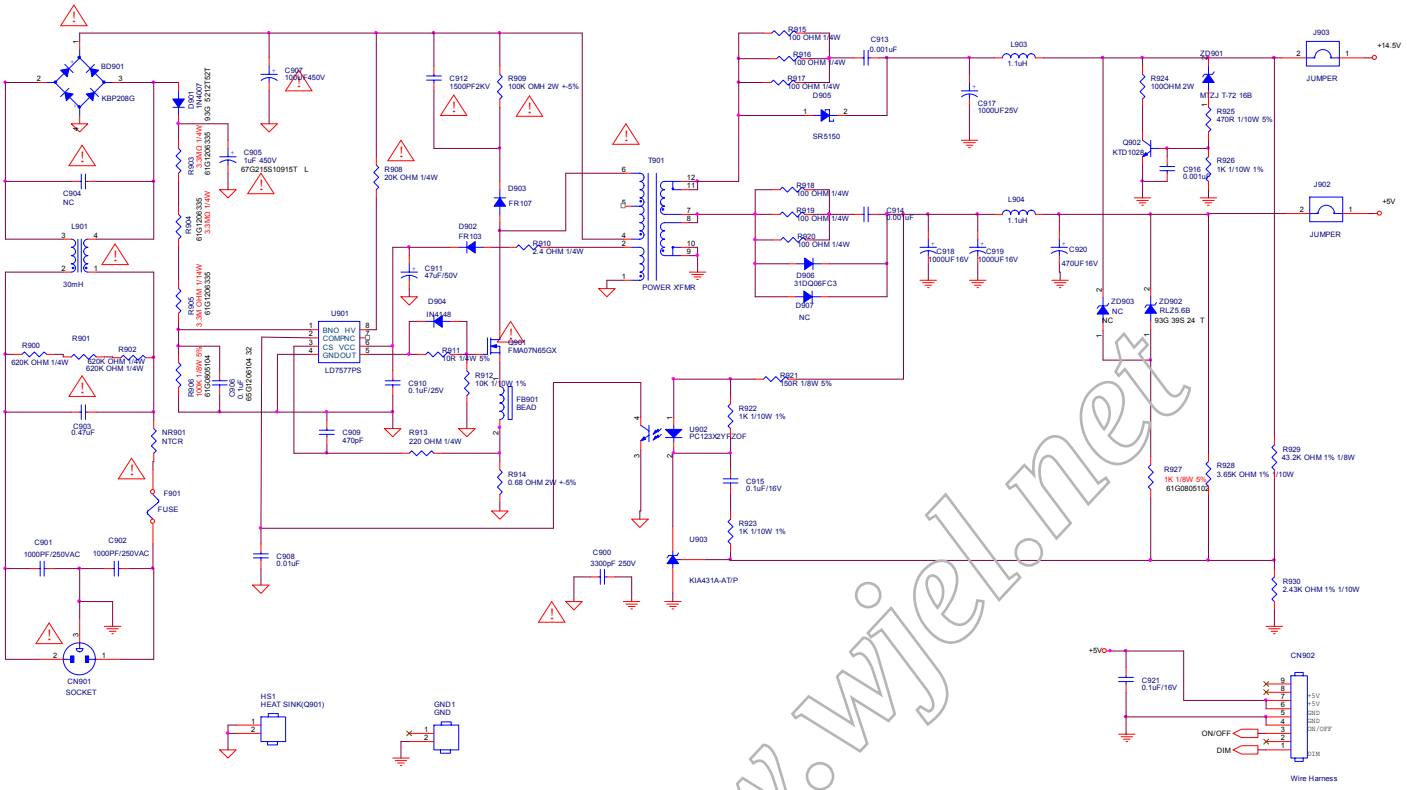
2. POWER



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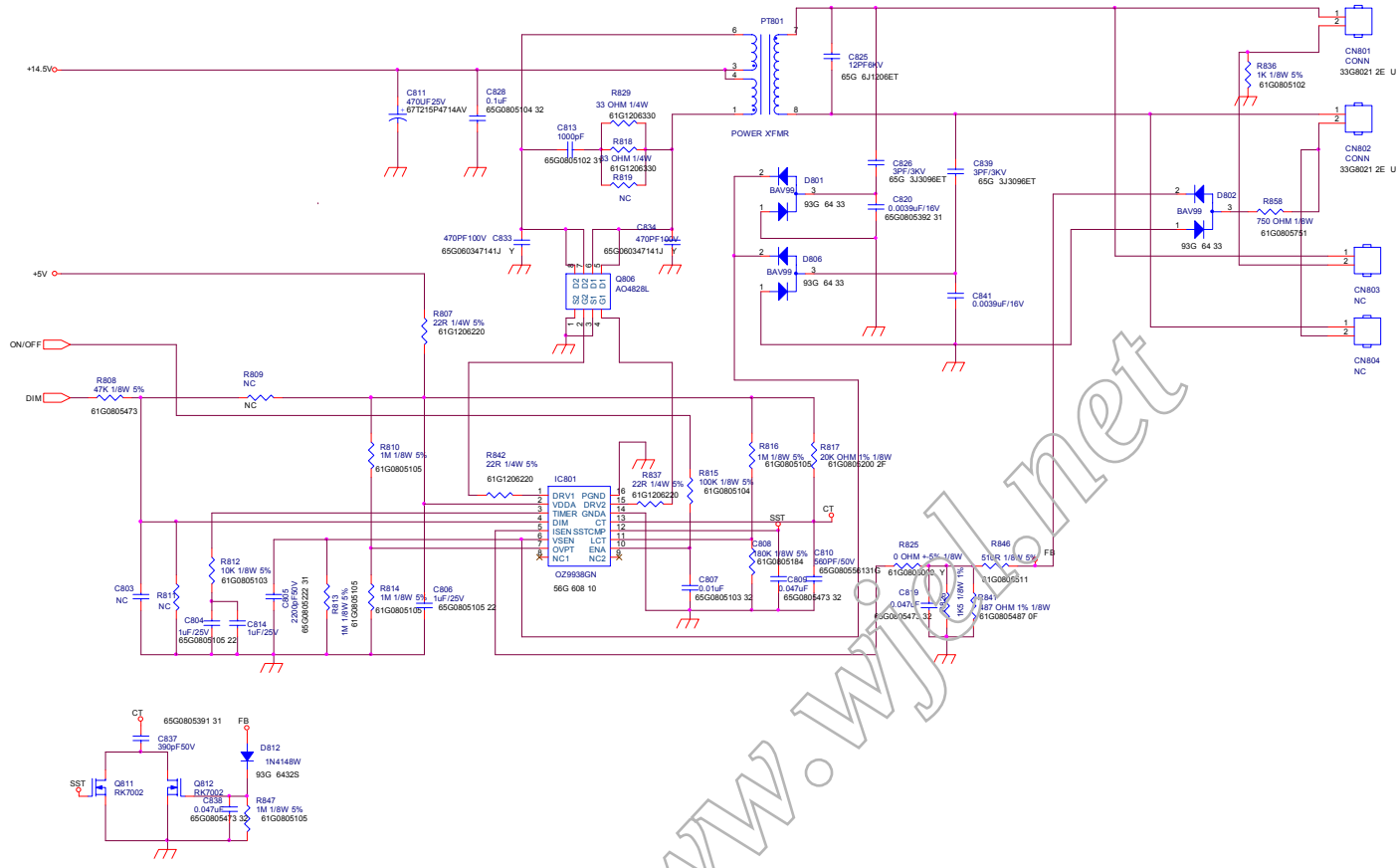
3. INVERTER



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